LIS-LIBRARY AND INFORMATION STUDIES

LIS 1013   Information and Digital Literacy   3 Credit Hours
In this era of "alternative facts" and "fake news" information literacy can help students learn to identify information from disinformation. This course is intended to make students more knowledgeable consumers of information, particularly when using internet resources and social media. Exercises in the use and evaluation of information resources, online searching, information ethics, visual literacy, and copyright/fair use are emphasized. (F, Sp) [I-O].

LIS 2003   Introduction to Information Science   3 Credit Hours
Explores the definition, impact, and history of information and information transmission. Introduces technology used to create, read, store, retrieve and transmit information. Analyzes societal institutions, techniques, and processes for the creation, distribution and management of information. Assesses the role of the information professions and information systems in culture and society. (F, Sp) [III-SS].

LIS 2033   Introduction to Digital Humanities   3 Credit Hours
(Crosslisted with HIST, WGS and HSTM 2033) This course introduces students to digital and/or computational methods in the humanities and addresses critical questions about the role of digital technology in society. This is a collaborative, hands-on, project-based course. (Sp) [IV-WC].

LIS 3063   Essentials of IT & Informatics   3 Credit Hours
Prerequisite: sophomore standing. Students will learn the fundamentals of information technology concepts and applications, understand and utilize emerging technologies to meet society's rapidly changing information needs, and apply these in solving various information problems. (F, Sp)

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

LIS 3960   Honors Reading   1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Consists of topics designated by the instructor in keeping with the student's major or program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)

LIS 3970   Honors Seminar   1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to Honors Program. May be repeated; maximum credit six hours. Subjects covered vary. Deals with concepts not usually treated in regular courses. (Irreg.)

LIS 3980   Honors Research   1-3 Credit Hours
1 to 3 hours. Prerequisite: admission to the Honors Program. May be repeated; maximum credit six hours. Will provide an opportunity for the gifted Honors candidate to work at a special project in the student's field of study. (F, Sp, Su)

LIS 3990   Independent Study   1-3 Credit Hours
1 to 3 hours. Prerequisite: permission of instructor and junior standing. May be repeated once with change of content. Independent study may be arranged to study a subject not available through regular course offerings. (F, Sp, Su)

LIS 4073   Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with LIS 5073; Crosslisted with WGS, HIST and HSTM 4073) Prerequisite: Junior standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

LIS 4143   Government Information   3 Credit Hours
(Slashlisted with LIS 5143) Prerequisite: junior standing. Introduces students to current policy, technology, and social factors that drive government resource and information production, distribution, and access. Topics include transformation of government information; information discovery skill sets, models, and techniques; evaluation of information use and value; and government information issues (e.g. access, authentication, privatization, preservation). No student may earn credit for both 4143 and 5143. (F)

LIS 4153   OU in Italy Libraries and More   3 Credit Hours
(Slashlisted with LIS 5153) Prerequisite: Senior standing or permission of instructor. This course will provide students with a hands-on, in-depth investigation and exploration of libraries, archives, and museums, in and around Arezzo, Italy. The primary focus is to investigate the commonalities and differences shared by the institutions, analyze historical influences, examine rare and unique collections, visit historic sites and institutions while gaining diverse cultural insights within the contents of learning. No student may earn credit for both 4153 and 5153. (Su)

LIS 4213   Social Informatics   3 Credit Hours
(Slashlisted with LIS 5213) Prerequisite: LIS 2003. Social Informatics analyzes interactions among people and information/communication technologies (ICTs). Issues covered include basic concepts of social systems, ICTs, and their interactions; uses of mobile information technology devices; online interaction and virtual community; information technology and work; and laws and policies related to information technologies. No student may earn credit for both 4213 and 5213. (Sp)

LIS 4223   Project Planning and Management   3 Credit Hours
(Slashlisted with LIS 5223) Prerequisite: LIS 3063 or permission of instructor. Fundamentals of planning, designing, and managing information technology solutions; market and trend analysis; planning and assessment techniques and tolls; human factors in technology management. No student may earn credit for both 4223 and 5223. (Su)

LIS 4303   Children's Literature   3 Credit Hours
Prerequisite: junior standing. Survey, evaluation and selection of materials for children; interests and needs of various age groups; methods of stimulating reading and listening. Reading of books for children is emphasized. (Correspondence)

LIS 4453   Digital Collections   3 Credit Hours
(Slashlisted with LIS 5453) Prerequisite: junior standing. Introduction to the creation and development of digital collections and to the technical requirements for storage and dissemination of digital materials. Topics will include creation, development, organization, maintenance, and use of digital collections. Students will explore a variety of techniques and technologies for digitizing materials; evaluate the strengths and limitations of current efforts in creating, collecting and organizing digital materials; and explore the different opportunities and challenges of digital libraries, repositories, and archives. No student may earn credit for both 4453 and 5453. (Sp)

LIS 4483   Introduction to Health Informatics   3 Credit Hours
(Slashlisted with LIS 5483) Prerequisite: Majors only; repeatable for credit, maximum credit 6 hours. Introduction to healthcare industry, data management in healthcare, foundation concepts in health informatics, and information search in healthcare. The student will gain a solid understanding of the fundamentals of health informatics to maximize the use of information, the source of health information, and the retrieval of health information in the delivery of efficient health information services to the users. No student may earn credit for both 4483 and 5483. (Sp)

LIS 4493   Data Stewardship   3 Credit Hours
(Slashlisted with LIS 5493) Prerequisite: Junior standing or permission of instructor. Data is being produced at an unprecedented rate in many forms and within many contexts. Information professionals play a vital role as ethical data stewards by organizing, curating, preserving, storing, proving access to, and repurposing data for varying purposes. Understanding the complex issues associated with ethical data stewardship is increasingly important in today's data saturated world. No student may earn credit for both 4493 and 5493. (F)

LIS 4523   Online Information Retrieval   3 Credit Hours
(Slashlisted with LIS 5523) Prerequisite: junior standing. Structure, content, and application of online databases for education, research, business, and public use. Principles and techniques for the evaluation of online databases and services. Document representation, information need specification and query formulation for online information retrieval. No student may earn credit for both 4523 and 5523. (F)

LIS 4613   Dynamic Web Development   3 Credit Hours
(Slashlisted with LIS 5613) Prerequisite: LIS 3063 and junior standing. The interactive web design server interaction with special emphasis on database connectivity and application development on the internet. No student may earn credit for both 4613 and 5613. (F)

LIS 4623   Advanced Data Analytics   3 Credit Hours
(Slashlisted with LIS 5623) Prerequisite: LIS 4643. Application of data analytic theories and models to solve real world problems using various unsupervised and supervised models. Topics include cluster analysis, association rule mining, random forest classifier, neural networks, and naive Bayesian classifiers. No student may earn credit for both 4623 and 5623. (F)

LIS 4633   Web Design and Implementation   3 Credit Hours
(Slashlisted with LIS 5633) Prerequisite: junior standing. Students will learn how to design contemporary websites and web pages using current design thinking, techniques and best practices, and how to implement the websites using front-end programming languages including HTML, CSS, and Javascript. No student may earn credit for both 4633 and 5633. (F)

LIS 4643   Introduction to Data Analytics   3 Credit Hours
(Slashlisted with LIS 5643) Prerequisite: LIS 2003. Introduces foundational concepts for data analytics. Topics include basic computer programming, statistical understanding and application, data structure, data types, data retrieval from various sources and forms, data cleaning/processing, data visualization, and group manipulations. No student may earn credit for both 4643 and 5643. (F)

LIS 4663   Information Studies Capstone   3 Credit Hours
Prerequisite: 2003, 3003, 4003, 4103, and senior standing. Capstone course for the Bachelor of Arts in Information Studies; design and development of an operational prototype information system in a selected organizational setting. Introduces project management terms, techniques, and effect on the success of information technology projects. (F, Sp, Su) [V] .

LIS 4673   Introduction to Information Visualization   3 Credit Hours
(Slashlisted with LIS 5673) Prerequisite: junior or senior standing. Information visualization is becoming key to LIS, due to the growing need for visual literacy and to the growing demand for data resources in almost all disciplines. Covers basics of developing and evaluating information visualizations and the importance of data accuracy. No student may earn credit for both 4673 and 5673. (F)

LIS 4683   Database Design for Information Organizations 3 Credit Hours
(Slashlisted with LIS 5683) Prerequisite: LIS 3063. This course has two major components: (1) conceptual foundations of database design and theory and (2) practical applications of design and theory to real-world database designs. For the conceptual and theoretical design component, this class covers data definition and type, entity relationship diagram (ERD) and data normalization. The practical application uses emerging database tools to cover industry critical functions. No student may earn credit for both 4683 and 5683. (Sp)

LIS 4693   Information Retrieval and Text Mining   3 Credit Hours
(Slashlisted with LIS 5693) Prerequisite: LIS 3063 and LIS 4643, or instructor or advisor permission. Identify various sources of textual information in the society and learn different textual data collection methods, understand text analytic processes, understand textual information retrieval models and different text analytic methods to analyze textual information and interpret text analysis results for users' information needs. No student may earn credit for both 4693 and 5693. (Sp)

LIS 4723   Cybersecurity Essentials   3 Credit Hours
(Slashlisted with LIS 5723) Prerequisite: Junior standing and majors only. Covers the developments in cybersecurity by discussing and analyzing problems that security designers and security administrators address. Students will be provided hands-on experience with common tools and techniques used by security analysts and white/black hat hackers today. Students will be able to identify threats, assess the relative risk of the threats and develop cost effective countermeasures. No student may earn credit for both 4723 and 5723. (Sp)

LIS 4823   Internship in Information Studies   3 Credit Hours
Prerequisite: LIS 3063, LIS 4643, LIS 4143, LIS 4223, LIS 4633 or permission of instructor and adviser. Provides an opportunity for student synthesis of principles and theories acquired in coursework and application of these principles and theories in a working environment. Under professional supervision, the student will complete 135 hours emphasizing general understanding of the specific assignment and completion of a focused project. (F, Sp)

LIS 4920   Directed Research   1-3 Credit Hours
1 to 3 hours. Prerequisite: LIS 3063, LIS 4643, LIS 4143, LIS 4223, LIS 4633, or permission of instructor and adviser. May be repeated; maximum credit three hours. Faculty supervised research; requires written report. (Irreg.)

LIS 4940   Directed Project   1-3 Credit Hours
1 to 3 hours. Prerequisite: LIS 3063, LIS 4643, LIS 4143, LIS 4223, and LIS 4633 and senior standing, or permission of instructor and adviser; May be repeated; maximum credit three hours. Faculty supervised design and implementation of an information project that applies principles and theories acquired in coursework to solution of information problems in practical settings. Requires a project prospectus and written report. (Irreg.)

LIS 4960   Directed Readings   1-3 Credit Hours
1 to 3 hours. Prerequisite: Junior standing and permission of instructor. May be repeated; maximum credit three hours. Faculty supervised exploration of an area of information studies not covered in regularly offered courses. (Irreg.)

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

LIS 4990   Independent Study   1-3 Credit Hours
1 to 3 hours. Prerequisite: junior standing and permission of instructor. May be repeated; maximum credit nine hours. Examination and discussion of current problems in information studies. (F, Sp, Su)

LIS 5023   Management in Information Organizations   3 Credit Hours
Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. Introduction to managerial principles and practices for information organizations such as libraries and archives, emphasizing financial administration, legal and ethical practices, organizational communication, operational efficiencies, personnel development, and planning processes. (F, Sp)

LIS 5033   Information and Society   3 Credit Hours
Prerequisite: Graduate standing or permission of instructor. Introduction to conceptual foundations of the information society, including the nature of data, information, and knowledge; the evolution of national and global organizational information infrastructures; and ethical, legal, and social considerations for LIS professionals. (F, Sp)

LIS 5043   Organization of Information   3 Credit Hours
Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. Introduction to the organization of internal and external sources of information, information services and tools, basic concepts of information storage and retrieval systems, and design and structure of information systems. Students will become familiar with organization methods such as classification, cataloging, taxonomies and metadata, and how the organization of information is connected to information retrieval. (F, Sp)

LIS 5053   Information Seeking and Use   3 Credit Hours
Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. The course teaches information seeking and use by people in various roles, situations, and contexts, individually and in groups. The course examines information behavior through psychological, sociological, and political perspectives, examining theory and applying it to practical, real-life information environments. (F, Sp)

LIS 5063   Fundamentals of Information Technology   3 Credit Hours
Prerequisite: Graduate standing, and LIS 5033 or concurrent enrollment. Students will learn the fundamentals of information technology concepts and applications, understand and utilize emerging technologies to meet society's rapidly changing information needs, and apply these in solving various information problems. No student may earn credit for both 4063 and 5063. (F, Sp)

LIS 5073   Cultural Heritage Data and Social Engagement 3 Credit Hours
(Slashlisted with LIS 4073; Crosslisted with WGS, HIST and HSTM 5073) Prerequisite: Graduate standing. This course uses methods from digital humanities, media studies, and data science to explore cultural heritage -- the histories, literature, art, and artifacts of our world's cultures. It particularly focuses on cultural heritage in digital public spaces: websites, social media, etc. No prior background in computer programming is necessary. No student may earn credit for both 4073 and 5073. (F)

LIS 5123   Literature and Methods For Readers' Advisory Services   3 Credit Hours
Prerequisites: 5033 and 5053. Examination of value and role of leisure reading in U.S. public libraries; interview techniques, support processes, and bibliographic resources for providing services to adults and older adolescent readers. (Irreg.)

LIS 5133   Biomedical Bibliography and Reference Materials   3 Credit Hours
Prerequisite: LIS 5033 or permission of instructor. Provides an in-depth study of the organization of medical reference departments; reference sources in the health sciences; and the major textbooks in the basic sciences, clinical sciences, and related specialties. Medical audiovisuals, periodicals, indexes and abstracts are included as is automated searching of medical literature. Basic medical terminology is an integral part of the course and given special consideration. (F)

LIS 5143   Government Information   3 Credit Hours
(Slashlisted with LIS 4143) Prerequisite: LIS 5033 or permission of instructor. Introduces students to current policy, technology, and social factors that drive government resource and information production, distribution, and access. Topics include transformation of government information; information discovery skill sets, models, and techniques; evaluation of information use and value; and government information issues (e.g. access, authentication, privatization, preservation). No student may earn credit for both 4143 and 5143. (F)

LIS 5153   OU in Italy Libraries and More   3 Credit Hours
(Slashlisted with LIS 4153) Prerequisite: Graduate Standing. This course will provide students with a hands-on, in-depth investigation and exploration of libraries, archives, and museums, in and around Arezzo, Italy. The primary focus is to investigate the commonalities and differences shared by the institutions, analyze historical influences, examine rare and unique collections, visit historic sites and institutions while gaining diverse cultural insights within the contents of learning. No student may earn credit for both 4153 and 5153. (Su)

LIS 5163   Biomedical Databases   3 Credit Hours
Prerequisite: LIS 5133 or permission of instructor. An in-depth approach to the on-line databases supplied by the National Library of Medicine and to the biomedical databases supplied by commercial companies. Deals with all aspects of searching, including the development of effective policies and procedures. Differences and similarities among the databases are emphasized. (F)

LIS 5173   Diversity Fundamentals in LIS   3 Credit Hours
Prerequisite: LIS 5033. Awareness of, and sensitivity to, diverse groups and multicultural heritages; information needs of multiethnic and diverse populations; information needs assessment and analysis; program and service planning. (Su)

LIS 5183   Information Resources and Services for Children   3 Credit Hours
Prerequisite: LIS 5033. Course covers childhood development and information needs of children; children's information behavior, learning, and reading; contemporary children's literature; digital media and technology; early literacy, information literacy, and 21st-century skills; selection/evaluation of information resources; information services for children; and 21st-century trends in children's services. (F)

LIS 5193   Information Resources and Services for Young Adults   3 Credit Hours
Prerequisite: LIS 5033. Covers developmental characteristics and information needs of young adults; young adults' information behavior, learning, and reading; contemporary young adult literature; digital media and technology; information literacy and 21st-century skills; selection/evaluation of information resources; information services for young adults; and 21st-century trends in youth services. (Sp)

LIS 5203   Leadership in Information Organizations   3 Credit Hours
Prerequisite: Graduate standing, and LIS 5023, LIS 5033 or concurrent enrollment; or permission of instructor. Advanced leadership skills for information organizations such as libraries and archives, emphasizing organizational analysis, planning, and assessment, as well as the development of appropriate organizational leadership styles. (F, Sp)

LIS 5213   Social Informatics   3 Credit Hours
(Slashlisted with LIS 4213) Prerequisite: graduate standing. Social Informatics analyzes interactions among people and information/communication technologies (ICTs). Issues covered include basic concepts of social systems, ICTs, and their interactions; uses of mobile information technology devices; online interaction and virtual community; information technology and work; and laws and policies related to information technologies. No student may earn credit for both 4213 and 5213. (Sp)

LIS 5223   Project Planning and Management   3 Credit Hours
(Slashlisted with LIS 4223) Prerequisite: Graduate standing, LIS 5033, and LIS 5063; or permission of instructor. Fundamentals of planning, designing, implementing, and managing information technology solutions; market and trend analysis; planning and assessment techniques and tools; human factors in technology management. No student may earn credit for both 4223 and 5223. (Su)

LIS 5233   Oklahoma Information Environment   3 Credit Hours
Prerequisite: LIS 5033 or permission of school. Interaction between information and culture in the state of Oklahoma with emphasis on information needs, resources, and challenges; research collections; public libraries; tribal libraries and tribal colleges; digital technologies; in-depth exploration of library, museum, archival, and other information services and resources for Oklahomans. (Su)

LIS 5243   Comics and Graphic Novels   3 Credit Hours
Prerequisite: Graduate standing and majors only. The course has 3 major components. History & Language of Comics with focus on the period of the Golden Age to the modern day; Comics & the Community, which will examine the relationships between comic book fans and the medium; and Libraries & the Role of Comics, which will focus on the relationship libraries have with comics & graphic novels. (Sp)

LIS 5253   Community Relations and Advocacy   3 Credit Hours
Prerequisite: LIS 5023, LIS 5033. Examination of the communication process by which the library/information center personnel satisfy user needs and provide/transmit information about the program objectives and functions to develop public awareness and support. Involves as audiences: the users, the library/information center staff, general public, governance entities, political representatives, educational and service agencies, and professional organizations. (F)

LIS 5283   School Library Administration   3 Credit Hours
Prerequisite: LIS 5023 and LIS 5033. History and role of school libraries in the educational program; planning, organizing and administering library programs in the elementary and secondary schools. (Sp)

LIS 5343   Archival Concepts and Traditions   3 Credit Hours
Prerequisite: LIS 5033. Introduction to the principles and practice of collecting, servicing, and arranging archival holdings. Includes appraisal, acquisition, arrangement and description, preservation, and administration of institutional archives. Attention to issues of preservation, intellectual property, and service in both physical and digital environments. (Sp alternating semesters)

LIS 5403   Cataloging and Classification   3 Credit Hours
Prerequisite: 5033, 5043. Detailed study of principles and practices of cataloging and classification according to current standards. Instruction covers original descriptive cataloging, subject analysis and classification. (alt. F, irreg. Su)

LIS 5443   Collection Development and Management   3 Credit Hours
Prerequisite: LIS 5033 and LIS 5043. Examination of the acquisition and evaluation processes used for building and maintaining collections in all formats. Formulation and implementation of collection development policies, identification of user needs, selection methods and tools, storage alternatives, publishing and intellectual freedom, administrative and legal issues including licensing and contract negotiation. (F)

LIS 5453   Digital Collections   3 Credit Hours
(Slashlisted with LIS 4453) Prerequisite: LIS 5033, LIS 5043, LIS 5063. Introduction to the creation and development of digital collections and to the technical requirements for storage and dissemination of digital materials. Topics will include creation, development, organization, maintenance, and use of digital collections. Students will explore a variety of techniques and technologies for digitizing materials; evaluate the strengths and limitations of current efforts in creating, collecting and organizing digital materials; and explore the different opportunities and challenges of digital libraries, repositories, and archives. No student may earn credit for both 4453 and 5453. (Sp)

LIS 5463   Archival Representation and Use   3 Credit Hours
Prerequisite: LIS 5033 or permission of instructor. Introduction to the principles and practices of collecting, servicing, and arranging archival holdings. Includes elements of appraisal, acquisition, and preservation with significant focus on archival arrangement, description, and administration of institutional archives. (Sp)

LIS 5473   Document and Records Management   3 Credit Hours
Prerequisite: graduate standing, LIS 5033 and LIS 5043. The systematic capture, acquisition, and processing, storage, and control of documents in all formats, including their management as records throughout the life cycle from creation to final disposition. Introduction to principles, methodologies, administration, tools, and techniques in various settings. (Irreg.)

LIS 5483   Introduction to Health Informatics   3 Credit Hours
(Slashlisted with LIS 4483) Prerequisite: Graduate standing, majors only; repeatable for credit, maximum credit 6 hours. Introduction to healthcare industry, data management in healthcare, foundation concepts in health informatics, and information search in healthcare. The student will gain a solid understanding of the fundamentals of health informatics to maximize the use of information, the source of health information, and the retrieval of health information in the delivery of efficient health information services to the users. No student may earn credit for both 4483 and 5483. (Sp)

LIS 5493   Data Stewardship   3 Credit Hours
(Slashlisted with LIS 4493) Prerequisite: Graduate standing. Data is being produced at an unprecedented rate in many forms and within many contexts. Information professionals play a vital role as ethical data stewards by organizing, curating, preserving, storing, providing access to, and repurposing data for varying purposes. Understanding the complex issues associated with ethical data stewardship is increasingly important in today's data saturated world. No student may earn credit for both 4493 and 5493. (F)

LIS 5503   Information Literacy and Instruction   3 Credit Hours
Prerequisites: 5033 and 5053. Instructional methods and materials for the acquisition and development of information literacy skills; theories of instruction and current trends in information literacy instruction. (Irreg.)

LIS 5513   Information Sources and Services   3 Credit Hours
Prerequisite: 5033, 5053. Characteristics and use of information sources and systems; policies and procedures for the provision of user-centered service in libraries and other information agencies. Introduction to basic reference tools in both print and electronic formats. (F, Sp, irreg. Su)

LIS 5523   Online Information Retrieval   3 Credit Hours
(Slashlisted with LIS 4523) Prerequisite: LIS 5033 and LIS 5053. Structure, content, and application of online databases for education, research, business, and public use. Principles and techniques for the evaluation of online databases and services. Document representation, information need specification and query formulation for online information retrieval. No student may earn credit for both 4523 and 5523. (F)

LIS 5533   Foundations of Learning Sciences   3 Credit Hours
(Crosslisted with EIPT 5533) Prerequisite: Graduate standing or permission of instructor. Learning Sciences is an interdisciplinary approach to investigating, understanding, and supporting learning. It draws on diverse fields and methodologies. The goal of this class is to develop a critical orientation with regard to how we use them in integrated, meaningful, contextual, and ethical ways, in service to learners and society. (F)

LIS 5563   Archival Appraisal   3 Credit Hours
Prerequisite: LIS 5033. Evaluation and examination of contributions of key figures in development of archival appraisal theory; identification and evaluation of distinct movements in archival appraisal; identification of cultural, political, sociological, and technological movements that can have impact on appraisal methodologies; and development of effective appraisal strategies for a variety of communities. (F even-numbered years)

LIS 5573   Makerspaces: Theory and Practice   3 Credit Hours
Prerequisite: Graduate standing and permission of instructor; Repeatable for credit, maximum credit 6 hours. An overview of theories and practice of makerspaces in libraries and museums. Students will learn theories behind the maker movement, hands-on tools and technologies, and issues on the design and implementation of a makerspace, such as assessing the needs of community, managing a space, facilitating making and learning, and evaluating the impact. (F)

LIS 5613   Dynamic Web Development   3 Credit Hours
(Slashlisted with LIS 4613) Prerequisite: Graduate standing, and LIS 4063 or LIS 5063. The interactive web design server interaction with special emphasis on database connectivity and application development on the internet. No student may earn credit for both 4613 and 5613. (F)

LIS 5623   Advanced Data Analytics   3 Credit Hours
(Slashlisted with LIS 4623) Prerequisite: Graduate standing and LIS 5643. Application of data analytic theories and models to solve real world problems using various unsupervised and supervised models. Topics include cluster analysis, association rule mining, random forest classifier, neural networks, and naive Bayesian classifiers. No student may earn credit for both 4623 and 5623. (F)

LIS 5633   Web Design and Implementation   3 Credit Hours
(Slashlisted with LIS 4633) Prerequisite: LIS 5033. Students will learn how to design contemporary websites and web pages using current design thinking, techniques and best practices, and how to implement the websites using front-end programming languages including HTML, CSS, and JavaScript. No student may earn credit for both 4633 and 5633. (F)

LIS 5643   Introduction to Data Analytics   3 Credit Hours
(Slashlisted with LIS 4643) Prerequisite: LIS 5033. Introduces foundational concepts for data analytics. Topics include basic computer programming, statistical understanding and application, data structure, data types, data retrieval from various sources and forms, data cleaning/processing, data visualization, and group manipulations. No student may earn credit for both 4643 and 5643. (F)

LIS 5653   Preservation of Information Materials   3 Credit Hours
Prerequisite: graduate standing and LIS 5033. Theory and practice of the preservation and conservation of intellectual content and physical artifacts, including paper, microform, and digital records. Emphasis on planning and administering disaster prevention and recovery, preservation, and digitization programs. (Alt. Sp, Irreg. Su)

LIS 5673   Introduction to Information Visualization   3 Credit Hours
(Slashlisted with LIS 4673) Prerequisite: graduate standing and LIS 5033. Information visualization is becoming key to LIS, due to the growing need for visual literacy and to the growing demand for data resources in almost all disciplines. Covers the basics of developing and evaluating information visualizations and the importance of data accuracy. (F)

LIS 5683   Database Design for Information Organizations 3 Credit Hours
(Slashlisted with LIS 4683) Prerequisite: graduate standing and LIS 5033. This course has two major components: (1) conceptual foundations of database design and theory and (2) practical applications of design and theory to real-world database designs. For the conceptual and theoretical design component, this class covers data definition and type, entity relationship diagram (ERD) and data normalization. The practical application uses emerging database tools to cover industry critical functions. No student may earn credit for both 4683 and 5683. (Sp)

LIS 5693   Information Retrieval and Text Mining   3 Credit Hours
(Slashlisted with LIS 4693) Prerequisite: Graduate standing; LIS 5063 and LIS 5643, or permission of instructor. Identify various sources of textual information in the society and learn different textual data collection methods. Understand text analytic processes, textual information retrieval models, and different text analytic methods to analyze textual information and interpret text analysis results for users' information needs. No student may earn credit for both 4693 and 5693. (Sp)

LIS 5713   Research and Evaluation Methods   3 Credit Hours
Prerequisites: LIS 5033. Methods of investigating library and information (LIS) problems; use of evaluation in planning for continuous quality assessment and improvement of LIS policies, processes, and procedures; development of original research designs; evaluation of research studies in LIS. (F, Sp)

LIS 5723   Cybersecurity Essentials   3 Credit Hours
(Slashlisted with LIS 4723) Prerequisite: Graduate standing. Covers the developments in cybersecurity by discussing and analyzing problems that security designers and security administrators address. Students will be provided hands-on experience with common tools and techniques used by security analysts and white/black hat hackers today. Students will be able to identify threats, assess the relative risk of the threats, and develop cost effective countermeasures. No student may earn credit for both 4723 and 5723. (Sp)

LIS 5743   Digital Curation   3 Credit Hours
Prerequisite: Graduate standing. This course provides an introduction to the appraisal, processing, storage, maintenance, and use of born-digital collections and the technical requirements for their storage, preservation, and dissemination. Students will gain an in-depth look into archival practices focused on best practices for creation, selection, storage, and long-term discoverability of digital objects and policy development. (Irreg.)

LIS 5753   Archives in the Museum Setting   3 Credit Hours
Prerequisite: Graduate standing. This course teaches students to analyze and evaluate the range of recordkeeping systems, policies, and practical workflows which have been used by various institutions to document their collections, and the physical and intellectual environment in which records are created, used, and maintained. The course will focus on the records of natural history museums, Native American museums, and history museums. (Irreg.)

LIS 5823   Internship in Library/Information Centers   3 Credit Hours
Prerequisite: 18 hours of LIS coursework, including one-half of the required courses, permission of the supervising instructor. Provides an opportunity for student synthesis of principles and theories acquired in coursework and application of these principles and theories in an outstanding library/information center. Under professional supervision, the student will complete 135 hours. (F, Sp, Su)

LIS 5920   Directed Research   1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and LIS 5713, permission of instructor and adviser. May be repeated; maximum credit six hours. Research under faculty supervision; requires a written report. (F, Sp, Su)

LIS 5940   Directed Project   1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and 24 hours of LIS coursework and permission of instructor and adviser. May be repeated; maximum credit three hours. Design and implementation of a professional project that applies principles and theories acquired in coursework to the solution of professional problems in practical settings. Requires a project prospectus and a written report at conclusion of the project. Conducted under faculty supervision. May not be taken for credit toward the MLIS degree by students electing thesis option. (Irreg.)

LIS 5960   Directed Readings   1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and 15 hours of LIS coursework and permission of instructor and adviser. May be repeated; maximum credit six hours. Exploration of an area of library and information studies not covered in regularly offered course. (F, Sp, Su)

LIS 5970   Special Topics/Seminar   1-3 Credit Hours
Prerequisite: 1 to 3 hours. Prerequisite: Graduate standing or permission of instructor. May be repeated; maximum credit nine hours. Special topics or seminar course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research and field projects. (Irreg).

LIS 5980   Research for Master's Thesis   2-9 Credit Hours
Prerequisite: graduate standing and permission of instructor. Variable enrollment, two to nine hours; maximum credit applicable toward degree, six hours. (F, Sp, Su)

LIS 5990   Special Problems   1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of instructor. May be repeated; maximum credit nine hours. Examination and discussion of current problems in librarianship. (Irreg.)

LIS 6033   Intellectual Traditions in Information Studies   3 Credit Hours
Prerequisite: graduate standing and permission of school. Introduces students to the main philosophical traditions of research and scholarship that currently inform inquiry in Information Studies. (F)

LIS 6503   Information Behavior   3 Credit Hours
Prerequisite: graduate standing and permission of school. Information use by individuals and groups in various roles, situations, and contexts. Influences of learning and cognitive processes; value systems; and situational, psychological, sociological, and political perspectives on information behavior. Application of user studies to textual, graphical, and visual representation of information. Study of theoretical models and practical methodologies in information systems. (Sp)

LIS 6543   Social and Community Informatics   3 Credit Hours
Prerequisite: graduate standing and permission of school. Analysis of interactions among people, information/communication technologies (ICTs), and local social settings. Effects of social and technical contexts on the design, implementation, and evaluation of ICTs. Social systems and community contexts, ICTs, and their interactions; uses of mobile information technologies; online interaction and virtual community; information technology and work; and, organizational/institutional information technologies laws and policies. (F)

LIS 6553   Critical Information Studies   3 Credit Hours
Prerequisite: graduate standing and permission of school. Introduces students to Critical Theory. It examines the idea of immanent critique developed within the Frankfurt School and how critical theory informs inquiry in Information Studies. (Sp)

LIS 6713   Research Methods and Design in Information Studies   3 Credit Hours
Prerequisite: graduate standing and permission of school. A survey of quantitative, qualitative, and historical research designs. Topics covered include ethical issues; conceptualization and measurement; sampling; surveys; and data analysis. (Sp)

LIS 6920   Directed Research   1-3 Credit Hours
1 to 3 hours. Prerequisite: graduate standing and permission of school. May be repeated; maximum credit 12 hours. Students will prepare a proposal and have it approved by the SLIS faculty member who will direct the study and their SLIS faculty adviser prior to registration. (F, Sp)

LIS 6962   Doctoral Seminar   2 Credit Hours
Prerequisite: Graduate standing, majors only, and departmental
permission. May be repeated with change of content; maximum credit
8 hours. Serves as a venue for the development of a variety of skills
and capacities to succeed as a scholar. Offers a mix of sessions on
progression through the Ph.D. degree program, the research process,
guidance on the academic profession, and written and oral presentation
of scholarly research. (F, Sp)

**LIS 6970   Special Topics in the Theory of Information
Studies   1-3 Credit Hours**
1 to 3 hours. Prerequisite: graduate standing and permission of school.
May be repeated with change of subject matter; maximum credit six
hours. Topics in information studies for content not currently offered in
regularly scheduled courses. May include library and/or research and
field projects. (F)

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