

SCHOOL OF AVIATION

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General Information

The mission of the School of Aviation is to provide each student with the knowledge and the skills of a competent pilot and/or industry professional, combined with a liberal education and business concentration that will provide them an initial and long-term competitive advantage as professionals in global organizations and in society.

The School of Aviation is responsible for credit and noncredit aviation education, FAA Part 141 and 61 pilot training, and FAA AT-CTI curriculum and simulation courses. A Bachelor of Science Degree with four aviation concentrations and four aviation minors are offered.

The School of Aviation's modern training assets include: 15 Piper Warrior III aircraft (two with glass Avidyne flight systems and with Garmin 430 GPS units), nine Piper 100i aircraft with glass Garmin flight systems, one Cessna 152 Aerobat, two Twin Engine Piper Seminole, one King Air C-90 B Turbo Prop, three Guimbal Cabri G2 helicopters, two advanced FAA Aircrew Training Devices (Red Bird Simulator and Frasca Simulator). This modern aircraft fleet offers students advanced technology and also provides air transportation through the Faculty and Staff Transport (FAST) Program. Additionally, the AT-CTI program boasts a complete array of all available air traffic control simulations to include a Tower Simulation Cab for tower and ground operations, and an ATC Enroute Radar Simulation Facility Lab.

History

The University of Oklahoma School of Aviation was established in 1947, after purchasing the airport land in 1940, as an independent, Provost-directed department chaired by the airport manager J.E. Coulter. The school's initial charge was to provide flight instruction for OU students seeking flight certification. The Bachelor of Science in Aviation was developed in the mid-1970s and was first offered as a degree in 1978.

In 1994, the Department of Aviation joined the OU College of Continuing Education and in 2017 moved to the newly formulated College of Professional and Continuing Studies. As part of this transition, the Department of Aviation changed its name to the School of Aviation Studies. In 2022, the school moved to the College of Atmospheric and Geographic Sciences and became the School of Aviation.

Mission

Our program mission is to provide aviation majors with the knowledge and skills of a competent pilot, air traffic controller, and/or industry professional along with broad education and business concentrations that provide long-term competitive professional advantages.

Goal

All graduates of the program in aviation will have developed a depth of understanding of the aviation industry and been afforded the

opportunity to prepare for an aviation-related professional career following graduation.

Accreditation

Each of the four degree concentration programs are each fully accredited by the Aviation Accreditation Board International (AABI). Accreditation ensures each aviation student at OU earns a degree from a nationally recognized institution with a quality aviation program and impeccable safety record. It can also have the added benefit of opening more doors to students in the areas of industry scholarship procurement, internships, and eventual employment.

Careers

Career choices for students completing the undergraduate program in aviation include, but are not limited to, airport management, business planning analyst, aviation technical writer, contract specialist, corporate or airline management, corporate, military, air ambulance, sight-seeing, airline and flight test pilot, flight instructor, freelance commercial assistant, aircraft sales, leasing and insurance, flight dispatcher, flight schedule coordinator, safety inspector, air traffic controller, planning and development manager, aeronautical charting, aviation law, accident investigator, and air marshal. Additionally, OU Aviation helps students further their career prospects in that it is an approved school to provide training for the FAA Air Traffic-Collegiate Training Initiative and the Restricted Airline Transport Pilot, as well as enjoying pipeline agreements with several Regional airlines such as Envoy, PSA, Republic and as a Southwest Airlines Destination 225 Cadet Pathway partner.

Programs & Facilities

Max Westheimer Airport

The Max Westheimer Airport terminal building, the AM&E Building, and the simulator building located on North Campus at the University Research Park are the primary office and classroom buildings for the School of Aviation. The buildings contain many classrooms and study areas, with training aids, simulators, and other facilities to enhance the student's learning environment. The airport is a 15-20 minute drive from main campus or via the EMBARK (Norman's city bus service). Aviation students also have access to the school's maintenance hangars, which further enhance the student's ability to learn. Students are encouraged to take an active part in their learning process.

FAA Center of Excellence - Technical Training and Human Performance

In 2016, the University of Oklahoma was awarded as Technical Lead for the Federal Aviation Administration's newest Center of Excellence (FAA COE), focused on Technical Training and Human Performance (TTHP). There are currently 10 active FAA COEs in the United States. As of 2022, OU's Center is in its seventh operational year and has reached \$17 million in funding for 80 research projects. The Center serves the FAA's Air Traffic Organization and Civil Medical Aerospace Institute, as well as the Aviation Safety, Flight Program Operations, and NextGen divisions.

The OU FAA Center of Excellence TTHP is a consortium of 15 institutions and over 50 industry partners dedicated to helping the FAA revolutionize training practices for pilots, air traffic controllers, maintenance technicians, safety operators, and engineers. The Center also examines human performance, such as the cognitive, physiological, and psychological factors that result in human error during high risk-based decision making. In addition, the Center has worked with the FAA to increase employee readiness for addressing workforce challenges from natural disasters and/or pandemics. The Center has also recently

been expanded to support the FAA in responding to new legislation mandating the in-depth study of the human factor impacts of flight automation on pilot and crew in commercial aircraft.

FAA COE TTHP Leads: University of Oklahoma, Embry-Riddle Aeronautical University, and Wichita State University.

FAA COE TTHP Core Institutions: Auburn University, Drexel University, Inter American University, Oklahoma State University, Purdue University, The Ohio State University, The University of Akron, The University of Oklahoma, Tulsa Community College, University of Nebraska-Omaha, University North Dakota, University of Wisconsin – Madison, Western Michigan University, and Wichita State University.

For more information about the FAA COE TTHP, visit <http://www.coethp.org>. To discuss partnering with our organization, please contact April Millaway Axton, Program Manager at april.e.williams@ou.edu.

Air Traffic–College Training Initiative (AT-CTI)

The University of Oklahoma has a long history of partnership with the Federal Aviation Administration (FAA) and was selected as an AT-CTI school in Fall 2007, making OU one of few approved programs in the southwest region of the United States. This program has been added as a proactive approach to help develop the much needed additions to the FAA workforce. The AT-CTI programs are a priority source of hiring for the FAA and likely a more prevalent source for professional controller candidates worldwide. Graduates from these programs may apply to the FAA Air Traffic Control Academy in Oklahoma City. However, the AT-CTI coursework must be completed in conjunction with a Non-Engineering Aviation Degree from an approved FAA AT-CTI school. In order to be considered for an ATCS position with FAA, you must not have reached your 31st birthday for Tower and En Route Center facility employment. For more specific details, visit the Federal Aviation Administration's website or contact OU Aviation.

Sooner Flight Academy

The University of Oklahoma's Sooner Flight Academy (SFA) provides aviation, aerospace, and STEM education for K-12 learners via field trips, one-day workshops, fall and spring break sessions, and summer camps. The SFA program helps learners develop an understanding of and love for aviation and flight through various hands-on lessons, panels, activities, demos, and experiments.

The purpose of the OU Sooner Flight Academy is to establish lifelong contributions to aviation and related STEM career fields. A secondary goal of SFA is to provide youth with college-aged role models, most of whom are studying to be pilots, air traffic controllers, and/or in airport or airline operations management, to promote a continuation of education beyond high school and vocational school with a linkage to lifelong learning opportunities available through the OU School of Aviation. In addition, the program provides teacher training and curriculum to support under-resourced districts that desire Aviation and Aerospace opportunities for Oklahoma youth.

To learn more about SFA and/or participate in our programs, please visit flightcamp.ou.edu and/or contact Ashley Chrisman, SFA Program Director at ashley.n.chrisman@ou.edu.

Internships

Aviation related internship experiences are available for qualifying students. Interested students should contact the Aviation Advising Office at (405) 325-7231 for more information.

Scholarships

The School of Aviation Studies awards a number of scholarships each semester to deserving majors who have been enrolled in the program. Individual scholarship application procedures and deadlines may be found on Aviation Scholarships.

Honor Societies and Professional Organizations

Eight unique societies and professional organizations are available for students in aviation:

- Sooner Air Traffic Control Association (SATCA) – for students with an interest in supporting the ATC programs
- Sooner Aviation Club – for students interested in aviation
- Sooner Chapter of American Association of Airport Executives (AAAE) – for students interested in the business side of aviation, including airport management
- Women In Aviation International (WAI) – for students dedicated to the encouragement and advancement of women in all aviation career fields and interests
- Alpha Eta Rho, Beta Chi Chapter – an international fraternity for aviation students
- National Intercollegiate Flight Association (NIFA) Flight Team – comprised of aviation students who compete regionally on a collegiate level in various aviation-related events, varying in complexity
- National Gay Pilot's Association (NGPA) – an organization open to all students to build, support and unite the LGBTQ aviation community worldwide
- Colonel Kenneth R. Carson Aviation Leadership Program – to provide leadership training, professional development and networking opportunities with the aviation industry to the top 10% of OU Aviation students

Undergraduate Study

Bachelor of Science Degree

The undergraduate degree in Aviation is designed to offer students a choice in their aviation career. The degree offers four areas of concentration:

- Air Traffic Management
- Aviation Management
- Non-Flying Aviation Management
- Professional Pilot - Airplane
- Professional Pilot - Helicopter

Aviation majors must earn a minimum grade of C in aviation courses to be considered passing and move to the next requirement. Upon completion of the program, the student will have a basic familiarity with the facts, skills, techniques, and attitudes which are relevant to the aviation industry, along with the basic educational and aeronautical experience to compete in today's aviation marketplace.

Aviation Minors

Aviation minors are generally open to non-Aviation majors at the University of Oklahoma. Please check with the Aviation Advising Office, as the minors with a flight component may be suspended during periods of high demand, and the coursework in these instances must be reserved for Aviation majors. Air Traffic Control is the only Aviation minor open to Aviation majors. Students pursuing any Aviation minor must earn at least a minimum grade of “C” in Aviation courses taken to meet minor requirements.

- Air Traffic Control
- Aviation Management
- Single-Engine Commercial Pilot
- Multi-Engine Commercial Pilot

Admission

To be admitted to the Aviation program, a student must first be admitted to the University of Oklahoma. During periods of high demand, the admission for flight majors is open only in the fall term, with flight slots to be allocated to the admitted students over the course of the academic year (fall, spring, summer). Early application is considered important due to the limited number of students the program will be able to accept.

Inquiries concerning admission to the University should be addressed to the Office of Admissions & Recruitment, University of Oklahoma, 1000 Asp Avenue, Room 127, Norman, OK, 73019-4076. Specific requirements for admission may be found at the Admissions & Recruitment website.

Residency Requirement

Candidates for the BS degree must complete their last 30 hours as a resident student at the University of Oklahoma. However, if a candidate has completed the last 51 hours as a resident student at the University of Oklahoma, nine of the last 60 hours may be taken at another university or by correspondence. Students are encouraged to consult their advisors prior to enrollment.

Pass/No Pass Enrollment

Pass/No Pass Enrollment may only be used to fulfill Elective Requirements.

Use of Graduate Level Courses

Graduate-level courses may NOT count toward the undergraduate degree.

Credit Hour Load

Generally to be considered full time, an undergraduate student must be enrolled in at least 12 hours in a fall or spring semester and six hours in a summer session. Please be advised that the VA and various scholarship donors may have specific hour requirements that may vary. Enrollments of 20 hours or more in a fall or spring semester and 10 hours or more in a summer session, must be approved by an academic advisor within the School of Aviation Studies. Students requesting such an exception must have demonstrated readiness to perform on an overload basis either through superior performance on a college aptitude test, or on the basis of superior academic achievement in previous college coursework.

Concurrent Degree in Two Colleges

- Both degrees must be completed and certified in the same semester.
- A graduation application must be filed for each degree. Two diplomas will be awarded.

- At least 30 additional hours must be completed beyond the degree that requires the least number of hours.

Ten-Year Limitation Rules

Students must complete the degree requirements within a maximum of 10 calendar years from the date of that enrollment. If the work for a degree covers a period longer than 10 years, the student must update to the most current degree program requirements.

Credit in a student’s major that is more than 10 years old may not be applied toward a bachelor’s degree unless it is validated by the Aviation Academic Chair.

Academic Probation & Stop-Out Policy

To be considered in good standing with the School of Aviation, a student should maintain an OU retention and combined retention grade point averages of at least 2.25 and comply with all School of Aviation and FAA policies. Additionally, Aviation majors are required to enroll in and successfully complete a MATH course every semester until the Math 1743 requirement is fulfilled. This is essential due to the fact that math is a prerequisite for several of the “Basic Business” courses and all of the “Upper-Division Business” coursework required for the degree. Hence, failure to comply with the math rule will delay one’s degree completion.

If a student’s OU retention or combined retention grade point average falls below 2.25, or the math policy is not adhered to, the student will be placed on one semester of academic probation. Failure of a student to satisfy the terms of this probationary semester will lead to the student being stopped-out of the Aviation program. Likewise, a student who does not comply with all FAA and School policies will also be stopped-out of the program.

Students who are stopped out will have their enrollment cancelled and must change their major from Aviation. After being stopped out, students are not eligible to return to Aviation or enroll in Aviation courses until their OU retention and combined retention grade point averages have reached the minimum 2.25 and/or a MATH course has been successfully completed. Upon being stopped-out, students’ records will be transferred to the Academic Advising Resources Center (AARC). All stopped-out students must contact AARC to discuss options for changing their major and re-enrolling at the University of Oklahoma.

Graduation

Students must apply for the degree that they are pursuing; Deadlines are December 1 for spring graduates, March 1 for summer graduates, and May 1 for fall graduates. *Dates are subject to change at the discretion of Academic Records.* Application is made online via one.ou.edu. All Aviation majors are required to make an appointment for a graduation check the semester before they intend to graduate. During the graduation check, applications and senior exit interviews will be completed.

Aviation Credit Flight Fees

For information about flight courses offered at OU that carry a flight or lab fee which are *in addition* to the tuition costs for the courses, refer to the department website at <https://www.ou.edu/ags/aviation/about#fees>. Please contact the School of Aviation to verify costs at aviation@ou.edu or (405) 325-7231.

Aviation majors must earn a minimum grade of C in aviation courses to be considered passing and move to the next requirement.

Courses

AVIA 1013 Introduction to Air Traffic Control 3 Credit Hours

Prerequisite: Permission of the department. The purpose of this course is to learn about the air traffic control system from both the pilot and controller's perspectives. This course is the first of eight ATC courses required for the Air Traffic Management degree path or ATC minor and a prerequisite for basic air traffic control regulations. (F, Sp)

AVIA 1111 Aviation Orientation 1 Credit Hour

Prerequisite: Majors only and departmental permission. Required orientation course for all declared Aviation Majors during their first semester. Orients students to the department, curriculum, resources, and provides an overview of the various aviation professions. Guest lecturers will include departmental instructors covering all aspects of the industry, as well as the advising staff. (F, Sp)

AVIA 1113 Introduction to Aviation 3 Credit Hours

Prepares student to take the FAA private pilot written examination. Covers FAR's, meteorology, aerodynamics, flight physiology, performance charts, radio navigation techniques. (F, Sp, Su)

AVIA 1133 Private Ground - Helicopter 3 Credit Hours

Prerequisite: departmental permission. Prepares students to take the FAA Computer Knowledge Test. Students will develop the knowledge specified by 14 CFR Section 141App B 3 (b) for a Private Pilot Rotorcraft/Helicopter certificate. (F, Sp, Su)

AVIA 1213 Basic Air Traffic Control Regulations 3 Credit Hours

Prerequisite: AVIA 1013 and permission of the department. This course is a progressive continuation of introduction to air traffic control and a prerequisite for general air traffic control procedures. This course is more narrowly focused on study and interpretation of the FAA orders and regulations that govern the air traffic control system and the national airspace system. (Sp, Su)

AVIA 1222 Primary Flying 2 Credit Hours

Prerequisite: 1113 or permission of department. Includes in-flight instruction with effort directed toward obtaining FAA certification as a private pilot. Third class medical must be obtained prior to flying. (F, Sp, Su)

AVIA 1332 Private Flight - Helicopter 2 Credit Hours

Prerequisite: departmental permission. Prepares students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for a private pilot certificate with a rotorcraft/helicopter category. (F, Sp, Su)

AVIA 2013 General Air Traffic Control Procedures 3 Credit Hours

Prerequisite: AVIA 1013, 1213, and permission of the department. This course will present the study of "general control" procedures used in the terminal and en route control options as well as FAA flight service processes and procedures. This course will serve as a prerequisite for airport traffic control procedures. (F)

AVIA 2231 Advanced Flying 1 Credit Hour

Prerequisite: AVIA 1222 or private pilot certificate. Flight instruction in preparation for FAA commercial pilot certificate. (F, Sp, Su)

AVIA 2341 Secondary Flying 1 Credit Hour

Prerequisite: 2231. Consists of cross-country experience under the direct supervision of an instructor pilot. Part of the FAA Part 141 commercial certification course. (F, Sp, Su)

AVIA 2513 The History of Aviation 3 Credit Hours

Prerequisite: Must be a declared aviation major with permission of the department. Chronicles the history of aviation through an in-depth study of powered flight and focus on the development of civil, commercial, and military aviation. Covers significant events and people throughout aviation history from the first powered flight through present day developments and a brief look into the future. Also examines the impact of aviation on recreation, transportation, warfare, and exploration. (F, Sp)

AVIA 2613 Aviation Safety 3 Credit Hours

Prerequisite: Sophomore standing and departmental permission. This course will examine all aspects of accidents/incidents involving airline and general aviation flights. It examines those areas from the perspective of pilots, crew members, air traffic controllers and National Transportation Safety Board (NTSB) findings. Each accident/incident is dissected with the goal of determining what went wrong and lessons that can be learned. (F, Sp)

AVIA 2970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: Must be a declared aviation major with permission of the department. May be repeated; Maximum credit nine hours. Special topics course for content not currently offered in regularly scheduled courses. May include library and/or laboratory research, and field projects. (Irreg.)

AVIA 3013 Career Development for Aviation Professionals 3 Credit Hours

Prerequisite: Sophomore standing and must be a declared aviation major with permission of the department. This course will provide an overview of the career planning process for aviation students. Students will master the techniques of self-assessment, resume and letter writing, interviewing, researching companies, proper writing techniques, ethics and etiquette, and networking. This course is intended to help students prepare for internship interviews or entering the aviation industry as a professional. (F, Sp)

AVIA 3103 Flight Deck Environmental Issues 3 Credit Hours

Prerequisite: Must be a declared aviation major and departmental permission. Human-machine interface issues in today's modern flight deck are the focus of the course. Leading to that end, the student will explore the cognitive and psychomotor domains of learning, review studies of aircrew interface problems, learn coping mechanisms used by today's best aviation trainers to overcome design-induced problems in cockpit advanced technology. (F, Sp)

AVIA 3111 Advanced Flight Maneuvers 1 Credit Hour

Prerequisite: 1222 or FAA private pilot certificate. Increase the student's knowledge and understanding of advanced flight maneuvers. Accelerated stalls, spins, inverted flight, and recovery from unusual altitudes. Advanced aerodynamics will be discussed and demonstrated. (F, Sp, Su)

AVIA 3113 Commercial Aviation 3 Credit Hours

Prerequisite: AVIA 3133 or instrument rating and permission of the department. Course provides the student the knowledge required to obtain a commercial pilot certificate. (F, Sp, Su)

AVIA 3123 Instrument Ground - Helicopter 3 Credit Hours

Prerequisite: Sophomore standing and departmental permission; AVIA 1133 and AVIA 1332 with grade of C or better. Prepare students with the knowledge specified by 14 CFR Section 61.65 and 14 CFR Section 141 Appendix C for an Instrument Pilot Rotorcraft/Helicopter certificate. (F, Sp, Su)

- AVIA 3133 Fundamentals of Instrument Flight 3 Credit Hours**
Prerequisite: 2231 and private pilot license. Federal aviation regulations as pertain to instrument flight rules (IFR), weather and forecast products, interpretation of en route low altitude charts and terminal instrument approach procedures, instrument flight procedures and techniques. (F, Sp, Su)
- AVIA 3143 Commercial Ground Helicopter 3 Credit Hours**
Prerequisite: Sophomore standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123 and AVIA 3532 with grade of C or better. Prepare students with the knowledge specified by 14 CFR Section 61.125 for a Commercial Pilot Rotorcraft/Helicopter certificate. (F, Sp, Su)
- AVIA 3213 Airport Traffic Procedures 3 Credit Hours**
Prerequisite: AVIA 1013, 1213, 2013, and permission of the department. The primary focus of this course is to study visual air traffic control procedures, specifically, to learn the principles of operation and the separation methods required in the air traffic control tower environment. This course will serve as a prerequisite for IFR Air Traffic Control Procedures. (Sp)
- AVIA 3313 IFR Air Traffic Procedures 3 Credit Hours**
Prerequisite: AVIA 1013, 1213, 2013, 3213, and permission of the department. Focus on the requirements and procedures used in the IFR air traffic control environment. The students will study all of the separation standards and rules used in radar and non-radar environments in the approach control and air route traffic control facilities. This course will serve as a prerequisite for Air Traffic Simulation. (F)
- AVIA 3333 Survey of Aviation Law 3 Credit Hours**
Prerequisite: AVIA 1113, junior standing, and permission of the department. Survey of legal issues in aviation. The student will review legislation, regulatory agencies, and case studies dealing with legal issues in the medium of airspace above the ground-predominantly over the United States. The student will be able to identify and comprehend the historical events and technical terms that describe national and international legal precedents that have shaped aviation law. (F, Sp)
- AVIA 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)
- AVIA 3513 Airport Operations Management 3 Credit Hours**
Prerequisite: AVIA 1113, junior standing, permission of the department, and must be a declared Aviation major. Provides the student with an in-depth analysis of airport management, operations and planning functions necessary to operate, develop, and maintain safe and efficient airport facilities as is the practice in the United States. Also introduces air traffic control (ATC) concepts. (F, Sp)
- AVIA 3532 Instrument Flying - Helicopter 2 Credit Hours**
Prerequisite: Sophomore standing and departmental permission; AVIA 1133 and AVIA 1332 with grades of C or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for an Instrument Pilot Rating with a rotorcraft/helicopter category to include Preflight Preparation, Preflight Procedures, Air Traffic Control Clearances & Procedures, Flight by Reference to Instruments, Navigation Systems, Instrument Approach Procedures, Emergency Operations and Post-flight Procedures. (F, Sp, Su)
- AVIA 3572 Instrument Flying 2 Credit Hours**
Prerequisite: 3133 and private pilot certificate. Individual flight simulator instruction in the technique of flying solely by reference to instruments. Ground instruction in radio navigation, meteorology, instrument approach procedures, air traffic control procedures and federal aviation regulations. (F, Sp, Su)
- AVIA 3581 Multi-Engine Flying 1 Credit Hour**
Prerequisite: 4552 or commercial pilot certificate. A study of the design, construction and flight characteristics of multiengine aircraft. Inflight instruction in pilotage and operation of multiengine airplanes. Designed to qualify the student for certification as a multiengine pilot. (F, Sp, Su)
- AVIA 3913 Aerospace Contract Administration 3 Credit Hours**
Prerequisite: Junior standing, permission of the department, and must be a declared aviation major. Survey and study of specialized procedures used in the management and administration of aerospace (aviation) contracts, particularly associated with commercial and defense systems acquisitions. Students will use case study analysis, involving aerospace development and acquisition procedures, to enhance the learning experience and prepare them for future employment in the aerospace industry. (F)
- AVIA 3923 Aerospace Operational Research 3 Credit Hours**
Prerequisite: Junior standing, must be a declared Aviation major, and departmental permission. Students will be introduced to the fundamental methods and techniques employed by the aviation/aerospace industry when researching and analyzing operational issues. Students will be able to use specialized research methods to collect data, analyze it, and then draw logical conclusions. Knowledge, skills, and abilities learned in this course will prepare students for Senior Capstone. (F)
- AVIA 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 program. The topics will cover materials not usually presented in the regular courses. (F, Sp, Su)
- AVIA 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.)
- AVIA 3980 Honors Research 1-3 Credit Hours**
1 to 3 hours. Prerequisite: Admission to 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. (F, Sp, Su)
- AVIA 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)
- AVIA 4004 Air Traffic Control Tower Simulation 4 Credit Hours**
Prerequisite: AVIA 1013, 1213, 2013, 3213, 3313, and 4013; all with minimum grade of C; and permission of the department. Provides students an opportunity to apply knowledge learned in previous air traffic control courses, specifically AVIA 3213, and expand the knowledge base of terminal ATC procedures. The application and expansion of knowledge will occur in lectures and through working in a high fidelity, simulated ATC tower environment. (F)

- AVIA 4013 En-Route Radar Lab 3 Credit Hours**
Prerequisite: AVIA 1013, 1213, 2013, 3213, 3313; all with minimum grade of C; and permission of the department. Lab to prepare student for on-the-job training in an FAA En-Route Air Traffic Control facility. Course will consist of dynamic simulation exercises in an ATC computer lab as well as classroom briefings. Students will run scenarios as the controller and as a pseudo pilot. Course objectives are based on federal guidelines by the Federal Aviation Administration. (Sp)
- AVIA 4023 Tracon Radar Lab 3 Credit Hours**
Prerequisite: AVIA 1013, 1213, 2013, 3213, 3313, 4004, and 4013; all with minimum grade of C; and permission of the department. Lab to prepare students for on-the-job training in an FAA Terminal Radar Air Traffic Control facility. Course will consist of dynamic simulation exercises in an ATC computer lab as well as classroom briefings. Students will run scenarios as the controller and as a pseudo pilot. Objectives are based on federal guidelines by the Federal Aviation Administration. (Sp)
- AVIA 4033 EnRoute Radar Lab-Enhanced Follow On 3 Credit Hours**
Prerequisite: Junior standing; AVIA 1013, AVIA 1213, AVIA 2013, AVIA 3313, and AVIA 4013, all with a minimum grade of C. Provides students an opportunity to apply knowledge learned in previous air-traffic-control courses, including AVIA 3313 and AVIA 4013, and to prepare student for on-the-job training in an FAA EnRoute Air Traffic Control facility. Course consists of simulation exercises in an ATC computer lab as well as classroom briefings. Students will run scenarios as the controller and as a pseudo pilot. (F, Sp, Su)
- AVIA 4043 ATC Tower Simulation Enhanced Follow On 3 Credit Hours**
Prerequisite: Junior standing; AVIA 1013, AVIA 1213, AVIA 2013, AVIA 3313, AVIA 4013, and AVIA 4004, all with minimum grade of C. This course provides students an opportunity to apply knowledge learned in previous air traffic control courses, specifically AVIA 4004, and expand the knowledge base of terminal ATC procedures. The application and expansion of knowledge will occur in lectures and through working in a high fidelity, simulated ATC tower environment. (F, Sp, Su)
- AVIA 4113 CFI Seminar 3 Credit Hours**
Prerequisite: 3133, 3113. Increase student knowledge of theories of learning, flight instructor authority, and responsibility and classroom and flight techniques. Emphasis on principles of instruction, student motivation and maneuver error analysis. (F, Sp, Su)
- AVIA 4123 Helicopter Flight Instructor Ground 3 Credit Hours**
Prerequisite: Junior standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143 and AVIA 4332 with grade of C or better. Prepare student instructor candidates with the knowledge specified by 14 CFR Section 61.181 and 14 CFR Section 141 Appendix F for a Flight Instructor Pilot Rotorcraft/Helicopter certificate. (F, Sp, Su)
- AVIA 4313 Turbine Transition 3 Credit Hours**
Prerequisite: AVIA 3581, 4552, and permission of the department. Introduce the student to the procedures of flying a turbine aircraft and the concepts of crew resource management. Emphasis is placed on the basic terminology and procedures and emergency operations. (F, Sp, Su)
- AVIA 4332 Commercial Flying - Helicopter 2 Credit Hours**
Prerequisite: Sophomore standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123 and AVIA 3532 with grade of C or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for a Commercial Pilot Certificate with a rotorcraft/helicopter category. (F, Sp, Su)
- AVIA 4423 Crew Resource Management 3 Credit Hours**
Prerequisite: AVIA 1113, junior standing, permission of the department, and must be a declared aviation major. To teach the student the principles and procedures of a two or more person cockpit. Includes: briefings, call-outs, and emergency procedures. (F, Sp)
- AVIA 4552 Commercial Flying 2 Credit Hours**
Prerequisite: 3113. The final stage of the FAA Part 141 commercial pilot certification course. Designed to polish pilot skills in commercial aircraft maneuvers. (F, Sp, Su)
- AVIA 4602 Flight Instructor-Airplane 2 Credit Hours**
Prerequisite: commercial pilot certificate and instrument rating. Flight instruction in preparation for FAA flight instructor certificate. (F, Sp, Su)
- AVIA 4613 Instrument Flight Instructor 3 Credit Hours**
Prerequisite: commercial pilot certificate and flight instructor-airplane certificate. Consists of lecture and flight instruction in the specialized teaching techniques and procedures required of an instrument flight instructor. At the end of the course, the student will meet the requirements for certification by the FAA as an instrument flight instructor. (F, Sp, Su)
- AVIA 4632 Flight Instructor - Helicopter 2 Credit Hours**
Prerequisite: Junior standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143 and AVIA 4332 with grade of C or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for a Certified Flight Instructor Rating with a rotorcraft/helicopter category. (F, Sp, Su)
- AVIA 4642 Instrument Instructor Helicopter Flight 2 Credit Hours**
Prerequisite: Junior standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143, AVIA 4332, AVIA 4123 and AVIA 4632 with grade of C or better. Prepare students with the knowledge, skill, and aeronautical experience necessary to meet the requirements for an Certified Flight Instructor Instrument Pilot Rating with a rotorcraft/helicopter category to include Preflight Preparation, Preflight Procedures, Air Traffic Control Clearances & Procedures, Flight by Reference to Instruments, Navigation Systems, Instrument Approach Procedures, Emergency Operations and Post-flight Procedures. (F, Sp, Su)
- AVIA 4643 Instrument Instructor Ground - Helicopter 3 Credit Hours**
Prerequisite: Junior standing and departmental permission; AVIA 1133, AVIA 1332, AVIA 3123, AVIA 3532, AVIA 3143, AVIA 4332, AVIA 4123 and AVIA 4632 with grade of C or better. Prepare the student with the knowledge specified by 14 CFR Section 61.65 and 14 CFR Section 141 Appendix G for the Flight Instructor Instrument Rotorcraft/Helicopter Rating. (F, Sp, Su)
- AVIA 4663 Survey of Aerospace Ethical Issues 3 Credit Hours**
Prerequisite: Junior standing, permission of the department, and must be a declared aviation major. A survey of past and present ethical issues influencing the development of ethical behavior among U.S. aerospace companies and commercial and corporate aviation. Individual development of defense mechanisms to ensure ethical behavior in competitive environments. (F, Sp, Su)
- AVIA 4713 Senior Capstone 3 Credit Hours**
Prerequisite: senior standing, permission of department, and all major upper-division courses or concurrent enrollment. This project course builds on the accumulated knowledge from all courses to date. Lectures will cover problem identification, analysis, generation of alternatives, cost/benefit studies, interviews and presentations. Student teams will analyze and make recommendations on an actual problem for an aviation related organization, such as the FAA. (F, Sp) [V].

AVIA 4803 Aviation Mental Health: Psychological Implications for Air Transportation 3 Credit Hours

Prerequisite: junior standing, permission of the department, and must be a declared aviation major. Students will learn about mental health issues relevant to passengers, cabin crew, and flight deck crew—that have far-reaching psychological implications for all those who travel by means of air transportation—through the experiences of flight attendants, pilots, clinicians, researchers, trainers, and professors. (Sp, Su)

AVIA 4960 Directed Readings 1-4 Credit Hours

1 to 4 hours. Prerequisite: good standing in University; permission of instructor and dean. May be repeated; maximum credit four hours. Designed for upper-division students who need opportunity to study a specific problem in greater depth than formal course content permits. (Irreg.)

AVIA 4970 Special Topics/Seminar 1-3 Credit Hours

1 to 3 hours. Prerequisite: Senior standing and permission of department; 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.)

AVIA G4983 Airline Management 3 Credit Hours

Prerequisite: Junior or graduate standing, and departmental permission; must be a declared aviation major. Study of the managerial aspects of the airline industry to include economic and organizational characteristics, marketing, operational scheduling, fleet planning, and labor relations. Students participate in management simulation as senior executives of a regional domestic carrier. (F, Sp)

AVIA 4990 Special Studies in Aviation 1-4 Credit Hours

1 to 4 hours. Prerequisite: departmental permission. Will encompass various aviation-related topics including many specialty flight programs; such as, aerobatic instruction, multiengine training, pilot refresher training, etc. (F, Sp, Su)

Faculty

Last Name	First/Middle Name	Middle init.	OU Service start	Title(s), date(s) appointed	Degrees Earned, Schools, Dates Completed
Hubbard	Todd	P	2012	PROFESSOR OF AVIATION, 2018; CLARENCE E. PAGE PROFESSOR OF AVIATION/ AEROSPACE STUDIES, 2012	EdD, Oklahoma State Univ, 2000; MS, Embry-Riddle Aeronautical Univ, 1987; BA, Oklahoma State Univ, 1974
Salgado	Brenda	D	2022	Associate Professor, 2022	EdD, Oklahoma State Univ, 1999; MA, Univ of Central Oklahoma, 1995; BA, University of Oklahoma, 1989