SIU Southern Illinois University
CARBONDALE

Table of Contents

Aviation Flight..... 1

Aviation Flight

The Aviation Flight program is designed to prepare beginning students for the Federal Aviation Administration (FAA) Commercial Pilot Certificate including the multi-engine and instrument ratings. Instruction is conducted at Southern Illinois Airport, Carbondale, Illinois. Flight theory courses will supplement and complement each flight course. In order to maintain the highest possible standards for flight and theory courses, each lesson of every course is submitted to and approved by the Federal Aviation Administration. FAA designated check pilots will examine the student's performance and effectiveness periodically during each flight course. University Core Curriculum requirements and basic science courses will be supplemented with a required core of flight courses and other related technical courses to enhance the student's professional value to the aviation industry. A grade of C or better is required for all Aviation Flight (AF) courses to satisfy the requirements for a major in Aviation Flight. Students can only repeat a maximum of two failed AF courses. In addition to the University tuition and fees, substantial lab fees are assessed for each flight course. For current charges, contact the Aviation Flight program.

The Associate in Applied Science degree can be completed in two academic years plus one summer semester at Southern Illinois University Carbondale or in combination with community college or other acceptable extra-instructional educational experience; however, the twenty-one credit hours of aviation flight courses must be taken at SIU Carbondale. If a Private Pilot certificate is earned prior to enrollment at SIU Carbondale, students will be required to take AF 199. Upon successful completion of AF 199, credit will be given for AF 201A and AF 201B. Contact the Aviation Flight program at 618-453-8898 for further information.

The Aviation Flight degree program requires the submission of a program application in addition to the University admission application. One cannot be fully admitted to the SIU Carbondale Aviation Flight program until the response to the second application is received. All applicants must satisfy University baccalaureate entrance requirements in order to be admitted to the University and to the Aviation Flight applicant pool. Enrollment in Aviation Flight will be based on selective criteria. It is recommended that the program application be completed and returned to the Aviation Flight program by December 1 of the year prior to desired Fall enrollment in the program or four months prior to desired Spring or Summer term entry.

After completing the Aviation Flight program the majority of graduates proceed on to a Bachelor of Science in Aviation Management (AVM) degree program on a "Two-Plus-Two" basis. In conjunction with enrollment in the Aviation Management program, Aviation Flight graduates are eligible for a wide range of flight operations internships at such airlines as United, Delta, and American. Also available is a flight internship experience via the SIU Carbondale Aviation Flight program as a flight instructor. Finally, AF 220 "Practicum in Air Carrier Operations" offers post-associate course work and flight experience as a pilot in command of the University's twin-engine aircraft.

Aviation Flight has a Random Student Drug Testing Program. For details refer to the school website at aviation.siu.edu.

Associate in Applied Science (A.A.S.) in Aviation Flight Degree Requirements

Degree Requirements	Credit Hours
University Core Curriculum	15
ENGL 101, ENGL 102, CMST 101, University Core Group I Science and MATH 108 or MATH 125 or University Core Curriculum Quantitative Reasoning course.	
Requirements for the Major in Aviation Flight Core Requirements	45
Aviation Flight Courses: AF 201A, AF 201B, AF 203, AF 204, AF 206A, AF 206B, AF 207A, AF 207B	24
Aviation Flight Technical Courses: AF 101, AF 200, AF 202, AF 205, AF 210, AF 211, AF 260	21
Total	60

All Aviation Flight courses are restricted to AF majors.

Aviation Flight Courses

AF101 - Foundations of Inquiry: Aviation Management and Flight This First-Year Seminar supports the transition of first-year students as they enter our research university. Students will demonstrate the knowledge, skills, and behaviors critical for academic and personal success; acquiring these capabilities as they are introduced to the foundations of inquiry. Credit Hours: 1

AF199 - Intermediate Flight/Program Transition This course is for the first time entry-level student certificated as a Private Pilot who was certified and trained outside SIUC. It provides orientation training in the areas of SIUC flight procedures and standards, SIUC flight training aircraft, local airspace and airport environments. The course as delivered will consist of twenty (20) hours of ground instruction, fourteen (14) hours of flight instruction, and will be restricted to Aviation Flight Majors only. Upon successful completion with a grade of C or better, credit will be posted for AF 201A and 201B and the student will be able to enroll in AF 203. Credit in AF 199 does not count in the Aviation Flight major. School approval required. Credit Hours: 2

AF200 - Primary Flight Theory Prepares the beginning aviation student for the FAA Private Pilot Written Examination. Consists of instruction in aerodynamics, FAA regulations, primary navigation, use of computer, weather, and radio navigation. Credit Hours: 3

AF201A - Primary Flight I Provides flight instruction in preparation for solo flight. Consists of dual flight instruction, limited solo flight and ground instruction in conjunction with each training flight and other flight-related topics. Restricted to admission to the SIUC aviation flight program. Credit Hours: 3

AF201B - Primary Flight II Provides flight instruction in preparation for the acquisition of the private pilot certificate. Consists of dual flight instruction, solo flight, and ground instruction in conjunction with each training flight and other flight-related topics. Prerequisite: AF 201A or FAA private pilot certificate. Credit Hours: 3

AF202 - Flight - Basic and Intermediate Theory Instruction in Federal Aviation Administration regulations pertaining to commercial flight operations. Includes advanced instruction in aerodynamics, weather and safe operation of aircraft. Prerequisite: AF 200. Credit Hours: 3

AF203 - Flight - Basic Beginning course in preparation for the Commercial Certificate. Major emphasis is upon solo and solo cross-country flight, with ground instruction in conjunction with each training flight and other flight related topics. Prerequisite: AF 201 and a valid Private Pilot Certificate. Special approval needed from the school. Credit Hours: 5

AF204 - Flight - Intermediate Continuing preparation for the Commercial Certificate. Including dual, solo and night flight instruction and advanced maneuvers. Ground instruction is provided in conjunction with each training flight. Prerequisite: AF 203. Credit Hours: 5

AF205 - Flight - Instrument Theory Course is directed to the theory of flight by instrument. Includes classroom instruction in Federal Aviation regulations pertaining to instrument flight, navigation by radio aids, aviation weather, and function, use, and limitations of instruments required for instrument flight. Prerequisite: AF 200 with a C or better. Credit Hours: 3

AF206A - Flight-Instrument I The course begins preparation for the Instrument Airplane Rating. Includes instrument flight instruction. Prerequisite: AF 201B or AF 199 with a grade of C or better. Credit Hours: 2

AF206B - Flight-Instrument II The course concludes training for the Instrument Airplane Rating. Includes instrument flight instruction. Prerequisite: AF 206A with a C or better. Credit Hours: 2

AF207A - Flight Advanced This course completes the requirements for the Commercial Pilot Certificate. Includes dual and solo flight maneuvers. Prerequisite: AF 206A, AF 206B, AF 204 with grades of C or better. Credit Hours: 2

AF207B - Flight Multi-Engine Operations Prepares the student for the FAA Multi-Engine rating (airplane). Includes multi-engine flight instruction and individual ground instruction. Prerequisite: AF 207A. Credit Hours: 2

AF210 - Human Factors for Aviators Provide the student specialized instruction in the areas of: physiological aspects of aviation, psychological aspects of aviation, aeronautical decision making and crew resource management. This course is writing intensive and reflects the College's Communication-Across-the-Curriculum initiative. Prerequisite: AF 202, ENGL 101. Credit Hours: 4

AF211 - Aviation Weather The course will provide both understanding and application of weather theory in relation to commercial flight operations. This course includes regulations issued by the Federal Aviation Administration relating to weather and safe flight. Problem based learning situations and presentations in the classroom on the adverse effects of weather are presented to increase hazardous weather awareness for pilots. Prerequisite: AF 200 or passed FAA Private Pilot written exam. Credit Hours: 3

AF220 - Practicum in Air Carrier Operations Students gain practical experience and training by participating as flight officers on passenger aircraft flights. Enables students to practice, under close supervision, the role of first officer within a passenger carrier format. Course includes 20 hours of flight time and a minimum of 40 hours pre- and post-flight activities and instruction. Mandatory Pass/Fail. Prerequisite: AF 207B. Special approval needed from the school. Credit Hours: 2

AF260 - Reciprocation and Jet Airplane Systems Students will have knowledge of construction, operation, and components of reciprocating and jet powerplants. They will understand the operation and components of cabin pressurization and air conditioning systems, flight control systems, landing gear systems, fuel systems, electrical systems, antiicing systems, and fire detection systems. Credit Hours: 4

AF299 - Aviation Flight Continuing Enrollment This course is to be taken to maintain continuing enrollment for flight students who have not finished the requirements of their degree program. Restricted to Aviation Flight or Aviation Management majors or consent of school. Credit Hours: 1-6

AF300A - Flight-Instructor I (Airplane) First of two university courses to prepare a commercial pilot for a FAA Flight Instructor Certificate. Prerequisite: AF 207A. Special approval needed from the school. Credit Hours: 1

AF300B - Flight-Instructor II (Airplane) Second of two university courses to prepare a commercial pilot for a FAA Flight Instructor Certificate. Prerequisite: AF 300A. Special approval needed from the school. Credit Hours: 1

AF301 - Flight-Instructor (Airplane-Multi-Engine) This course consists of 5 hours of dual flight instruction and 10 hours of classroom instruction. Prepares the holder of a flight instructor certificate for the addition of the multi-engine flight instructor rating. Prerequisite: AF 300A, AF 300B, AF 207B. Additional Prerequisite: students must have 15 hours Multi PIC. Credit Hours: 1

AF302 - Flight-Instructor (Airplane Instrument) Designed to prepare the flight instructor to teach instrument flying, and to acquire the Instrument Flight Rating. Course consists of 10 hours of dual flight instruction and 15 hours of classroom instruction. Prerequisite: AF 300A, AF 300B. Credit Hours: 1

AF303 - Flight Instructor Ground School This course is designed to aid the student who is obtaining a flight instructor's rating. It will cover principles to teaching as well as practical aspects of teaching flight maneuvers necessary for instruction. Prerequisite: AF 205. Credit Hours: 3

AF305 - Airline and Turbine Aircraft Operations This course uses a combination of class lectures and computer based flight training to develop an understanding of airline operational requirement and turbine aircraft operations. Topics include: turbine aircraft systems, Federal Aviation Regulation part 121 regulations, airline operational specifications, advanced aircraft avionics, advanced weather avoidance, crew resource management and airline career professional development. The course format includes a two hour lecture period and a two hour computer based flight training device session per week. Prerequisite: AF 207B. Credit Hours: 3

AF306 - Introduction to Technically Advanced Aircraft Operations This course uses a combination of orientation and simulation lessons to develop an understanding of Technically Advanced Aircraft (TAA) systems, navigation and autopilot. The student will develop the skills required to perform scenario based training missions in a TAA Flight Training Device (FTD). The course consists of 10 hours of orientation lessons and 16 hours of FTD lessons. Prerequisites: AF 206A and AF 206B, or consent of the school. Credit Hours: 2

AF311 - Aviation Weather II This course prepares the student to take manual surface weather observations. Students will participate in recording and coding METAR aviation surface weather observations. Prerequisite: AF 211 with a C or better or concurrent enrollment allowed in AF 211. Credit Hours: 1

Aviation Flight Faculty

Droll, Skyler, Assistant Instructor and Sr. Chief Flight Instructor, B.S., Southern Illinois University, 2014; 2020.

Goetz, Steven, Associate Professor and Chief Flight Instructor, M.S., Southern Illinois University Carbondale, 2011; 2008.

Harrison, Bryan, Associate Professor and Assistant Chief Flight Instructor, M.S., Southern Illinois University Carbondale, 2007; 2003.

Krupa, Adrian, Senior Lecturer and Assistant Chief Flight Instructor, B.S., Southern Illinois University Carbondale, 2001; 2007.

LeFevre, Michael, Assistant Instructor and Sr. Chief Flight Instructor, B.S., Southern Illinois University, 2013; 2017.

Lincoln, Nathan, Senior Lecturer and Assistant Chief Flight Instructor, B.S., Southern Illinois University Carbondale, 2000; 2001.

Robertson, Michael, Professor, AVM Associate Director, Assistant Chief Flight Instructor, and Safety Officer, Ph.D., Southern Illinois University Carbondale, 2017; 1999.

Wilkins, Kenneth, Assistant Professor and Sr. Chief Flight Instructor, M.B.A., Southern Illinois University Edwardsville, 2022; 2015.

Emeriti Faculty

Carter, Kim, Senior Lecturer and Assistant Chief Flight Instructor, Emeritus, M.S., Southern Illinois University Carbondale, 1996; 1996.

Kampe, David, Assistant Instructor and Sr. Chief Flight Instructor, Emeritus, M.S., Southern Illinois University Carbondale, 1997; 2022.

Ruiz, Lorelei, Associate Professor, Emeritus, M.S., Southern Illinois University Carbondale, 1997; 1995.

Thornhill, Gerald, Senior Lecturer, Emeritus, M.S., Central Missouri State University, 1993; 1997.

Voges, John K., Associate Professor and Chief Flight Instructor, Emeritus, M.S., Southern Illinois University Carbondale, 1999; 1994.

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