

FLIGHT SCIENCE (FSCI)

FSCI 1100 - Private Flight 1

0 or 3 Credits

This course introduces Private Pilot flight operations by developing the fundamental knowledge and skills needed for a student to conduct solo flight operations. The course includes ground training and dual flight training on visual flight maneuvers, emergency operations, and traffic pattern operations. At the conclusion of this course, students will have received training in all aeronautical knowledge areas, maneuvers, and procedures required for pre-solo flight training in the Federal Aviation Regulations, and they will conduct their first solo flight.

FSCI 1150 - Flight 1

0 or 3 Credits

This course will provide the fundamental knowledge required for the student to successfully learn the maneuvers and procedures for pre-solo flight, dual and solo local operations, and an introduction to VFR cross-country operations.

FSCI 1155 - Flight 1 Supplemental

1 or 2 Credits

This course will provide the supplemental coursework necessary for the student to perform the maneuvers and procedures for pre-solo flight, dual and solo local operations, and an introduction to VFR cross-country operations.

Prerequisite(s): (FSCI 1150 with a grade of C or higher or FSCI 1155 with a grade of C or higher)

FSCI 1200 - Private Flight 2

3 Credits

This course expands upon the knowledge and skills developed in the Private Flight 1 course to prepare a student to pass a checkride for the issuance of a Private Pilot Certificate. The course introduces dual flight training on cross-country and night operations and includes solo local and cross-country flight activities. The course will additionally provide the remaining aeronautical knowledge training, flight proficiency, and aeronautical experience required by Federal Aviation Regulations. At the conclusion of the course, students will be eligible to take their Private Pilot checkride.

FSCI 1250 - Basic Flight Foundations

3 Credits

This course will provide the fundamental knowledge of the pilot's role in operations including aircraft design, aircraft operating characteristics, aircraft maintenance, airports, airspace, air traffic control, VFR and IFR communications and aircraft performance.

FSCI 1550 - Flight 2

0 or 3 Credits

This course provides the fundamentals of cross-country flight from solo pilot in command to the Private Pilot Certificate; introduction to commercial maneuvers. This will include the elements of airmanship, night flight, practical weather, and other cross-country skills.

Prerequisite(s): (FSCI 1150 with a grade of C or higher or FSCI 1155 with a grade of C or higher)

FSCI 1555 - Flight 2 Supplemental

1 or 2 Credits

This course provides the supplemental coursework necessary for the student to perform cross-country flight from solo pilot in command to the Private Pilot Certificate; introduction to commercial maneuvers. This will include the elements of airmanship, night flight, practical weather, and other cross-country skills.

Prerequisite(s): (FSCI 1550 with a grade of C or higher or FSCI 1555 with a grade of C or higher)

FSCI 1560 - Flight 2 Transition

0-1 Credits

This course provides a transition for holders of a Private Pilot Certificate into the curriculum and will introduce them to commercial maneuvers.

This will include the elements of airmanship, practical weather, and other cross-country skills.

FSCI 2100 - Instrument Flight 1

3 Credits

This course introduces instrument flight operations by developing the fundamental knowledge and skills needed for an Instrument Rating. The course includes ground training, simulator training, and dual local flight training on basic attitude instrument flying techniques, navigation systems, precision and non-precision instrument approaches, and holding procedures. At the conclusion of the course, students will be prepared to pass a stage check on the instrument flight maneuvers included in the approved Training Course Outline.

FSCI 2150 - Flight 3

0 or 3 Credits

This course provides instruction for the application of previously learned commercial maneuvers; introduction of instrument flying and navigation skills in the flight environment.

Prerequisite(s): (FSCI 1550 with a grade of C or higher or FSCI 1555 with a grade of C or higher)

FSCI 2155 - Flight 3 Supplemental

1 or 2 Credits

Instrument Flying Handbook, Instrument Rating Practical Test Standards (PTS), IFR Low Altitude Enroute Chart, Terminal Procedures Publication.

Prerequisite(s): (FSCI 2150 with a grade of C or higher or FSCI 2155 with a grade of C or higher)

FSCI 2200 - Instrument Flight 2

3 Credits

This course expands upon the knowledge and skills developed in the Instrument Flight 1 course to prepare a student to pass a checkride for the issuance of an Instrument Rating. The course includes ground training, simulator training, and dual flight training on instrument cross-country procedures and partial-panel operations. The course will additionally provide the remaining aeronautical knowledge training, flight proficiency, and aeronautical experience required by Federal Aviation Regulations. At the conclusion of the course, students will be eligible to take the Instrument Rating checkride.

FSCI 2250 - Instrument Flight Foundations

3 Credits

This course will provide instruction in the advanced knowledge areas of aviation law for instrument flight, mass & balance, flight planning, and radio navigation for high performance aircraft as pilot in command.

Prerequisite(s): FSCI 1250 with a grade of C or higher

FSCI 2550 - Flight 4

0 or 3 Credits

This course will provide the principles of flight to qualify for the Instrument Rating for Single engine. These principles will include airmanship, complex aircraft systems, high altitude operations and weather, and flight planning.

Prerequisite(s): (FSCI 2150 with a grade of C or higher or FSCI 2155 with a grade of C or higher)

FSCI 2555 - Flight 4 Supplemental

1 or 2 Credits

This course provides the supplemental coursework necessary for the student to provide the principles of flight to qualify for the Instrument Rating for Single engine. These principles will include airmanship, complex aircraft systems, high altitude operations and weather, and flight planning.

Prerequisite(s): (FSCI 2550 with a grade of C or higher or FSCI 2555 with a grade of C or higher)

FSCI 2650 - Navigation Foundations

3 Credits

This course will provide instruction in the advanced knowledge areas necessary of general and global navigation for high performance aircraft as pilot in command. (Offered in Fall)

Prerequisite(s): FSCI 2250 with a grade of C or higher; (MATH 1200 with a grade of C or higher, MATH 1400 with a grade of C or higher, MATH 1320 with a grade of C or higher, or MATH 1510 with a grade of C or higher)

FSCI 2930 - Special Topics

1-3 Credits (Repeatable for credit)

FSCI 2980 - Independent Study

1 or 3 Credits (Repeatable for credit)

FSCI 3100 - Commercial Flight 1

3 Credits

This course introduces commercial flight operations by developing the fundamental knowledge and skills needed for a Commercial Pilot Certificate. The course introduces commercial maneuvers and operations in a Technically Advanced Aircraft (TAA). The course includes ground training, dual flight training, and solo activities to begin building the aeronautical experience necessary for a Commercial Pilot Certificate. At the conclusion of the course, students will be prepared to pass a stage check on the commercial flight maneuvers included in the approved Training Course Outline.

FSCI 3200 - Commercial Flight 2

3 Credits

This course expands upon the knowledge and skills developed in the Commercial Flight 1 course to prepare students to pass a checkride for the issuance of a Commercial Pilot Certificate. The course includes all remaining ground training, dual flight training, and solo operations necessary to meet the aeronautical knowledge, flight proficiency, and aeronautical experience requirements specified in the approved Training Course Outline. At the conclusion of the course, students will be eligible to take their Commercial Pilot checkride.

FSCI 3550 - Flight 5

0 or 3 Credits

This course will provide the principles of flight to qualify for the Commercial Certificate with the Single and Multi engine rating. These principles will include airmanship, complex aircraft systems, high altitude operations and weather, and flight planning.

Prerequisite(s): (FSCI 2550 with a grade of C or higher or FSCI 2555 with a grade of C or higher)

FSCI 3555 - Flight 5 Supplemental

1 or 2 Credits

This course provides the supplemental coursework necessary for the student to provide the principles of flight to qualify for the Commercial Certificate with the Single and Multi-engine rating. These principles will include airmanship, complex aircraft systems, high altitude operations and weather, and flight planning.

Prerequisite(s): FSCI 3550 with a grade of C or higher

FSCI 3700 - Principles of Flight Instruction

3 Credits

Fundamentals of teaching and learning; teaching methods; aerodynamics; flight training syllabus; maneuvers and procedures. The student is prepared to take the two flight instructor knowledge tests upon successful completion of this course.

Prerequisite(s): FSCI 3550 with a grade of C or higher; CORE 1500* ; CORE 1900; CORE 1500; CORE 1200* ; CORE 2500* ; CORE 1000; CORE 1000

* Concurrent enrollment allowed.

Attributes: UUC:Reflection-in-Action, UUC:Self in the World

FSCI 3750 - Flight 6

0 or 3 Credits

This course will provide the appropriate knowledge and skill to expertly control the airplane from the right seat while teaching a student.

Prerequisite(s): FSCI 3550 with a grade of C or higher

FSCI 3930 - Special Topics

3 Credits (Repeatable for credit)

FSCI 3980 - Independent Study

1-3 Credits (Repeatable for credit)

FSCI 4050 - Multiengine Flight

1 Credit

This course introduces multiengine flight operations to prepare students to pass a checkride for the issuance of an Airplane-Multiengine Rating. The course includes ground training, simulator training, and dual flight training on flight maneuvers, emergency procedures, emergency and single-engine procedures, instrument approaches, and cross-country operations. The course will provide the aeronautical knowledge training, flight proficiency, and aeronautical experience required by Federal Aviation Regulations. At the conclusion of the course, students will be eligible to take the Airplane-Multiengine rating checkride.

FSCI 4100 - CFI Practicum I

3 Credits

This course will provide a practical experience in flight education. The student will conduct flight training for at least one flight student. The student will also participate in directed group sessions emphasizing the delivery of quality flight instruction through the development of teaching skill, including, demonstration and the analysis of student performed maneuvers.

Prerequisite(s): FSCI 3700 with a grade of C or higher; Minimum Earned Credits of 90; FSCI 3750 with a grade of C or higher

FSCI 4500 - CFI Practicum II

3 Credits

This course will provide advanced practical experience in flight education. The student will conduct flight training for at least one flight student. The student will also participate in directed group sessions emphasizing the delivery of quality flight instruction.

Prerequisite(s): FSCI 4100 with a grade of C or higher

FSCI 4930 - Special Topics

1-6 Credits (Repeatable for credit)

FSCI 4950 - Senior Residency

1 Credit

FSCI 4980 - Advanced Independent Study in Flight Science

1-3 Credits (Repeatable for credit)

FSCI 5930 - Special Topics

1-3 Credits (Repeatable for credit)

FSCI 5980 - Graduate Independent Study in Flight Science

1-3 Credits (Repeatable for credit)

FSCI 5981 - Graduate Independent Study in Flight Science

1-6 Credits (Repeatable for credit)