

Degrees:

- A.S. – Air Traffic Control
- A.S. – Aircraft Dispatcher
- A.S. – Flight Technology

Division of Advanced Technology

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Technology, room 106
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Certificates of Achievement:

- Aircraft Dispatcher
- Flight Technology

Air Traffic Control

Associate in Science Degree

Program Information

Sacramento City College maintains an Air Traffic Control program in partnership with the Federal Aviation Administration’s (FAA) Collegiate Training Institute program. Our Associate of Science degree program is designed to provide students with a professional level of aviation knowledge and to allow students to compete for selection to attend the FAA Academy in a preferential selection pool.

The program is structured as an intensively-scheduled cohort learning program. Students will be taking a total of 14-15 units in a series of 4-8 week classes during each of the three semesters. Individual classes may require knowledge gained in prior classes, therefore scheduling individual classes outside of the cohort or taking courses out of sequence is not permitted.

The program covers all the FAA learning objectives of the FAA Academy’s AT Basics course in a 3-semester series (14-15 units per semester) of cohort classes. Students must complete the degree to receive hiring consideration in the preferential pool.

Current FAA hiring requirements for Air Traffic Controllers include a maximum age of 30 years at the time of application and U.S. citizenship. Students must complete the degree to receive hiring consideration in the preferential pool.

This program meets the needs of students who want to pursue further training opportunities for work in an FAA facility, work in a contract ATC facility, or work in an ATC facility for the military. It is also suitable for students seeking an expanded knowledge of aviation flight operations and traffic flow management.

Career Opportunities

Employment opportunities exist within the Federal Aviation Administration’s National Air Traffic Control system for Air Traffic Controllers and Remote Pilot Operators (RPO’s), with numerous contract facilities throughout the country, and with the military worldwide.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

The Federal Aviation Administration requires that all applicants read, write, speak, and understand the English language.

Upon completion of this program, the student will be able to:

- interpret Federal Aviation Regulations that pertain to Air Traffic Control procedures.
- utilize correct air-to-ground and ground-to-air communication terminology and phraseology.
- interpret and disseminate terminal and en-route weather reports.
- apply Air Traffic Control procedures in simulated radar approach control, terminal, and enroute environments.

Required Program

Units

ATCAD 300 Basic Terminal Procedures	3.5
ATCAD 301 Advanced Terminal Procedures	3.5
ATCAD 302 Basic En Route Procedures	3.5

ATCAD 303 Advanced En Route Procedures	3.5
FLTEC 100 Introduction to Aviation Careers (1)	1-3
or FLTEC 300 Introduction to Aviation (3)	
FLTEC 302 Aviation Weather	3
FLTEC 304 Human Factors and Risk Management in Aviation	3
FLTEC 306 Federal Aviation Regulations	3
FLTEC 310 Instrument Pilot/Instructor Ground School	4
FLTEC 312 Air Navigation, Airspace, and Communication	3
FLTEC 314 Large Aircraft Systems	5
FLTEC 321 Commercial Pilot Ground School	3
FLTEC 330 Airplane Aerodynamics	3

Total Units Required 42-44

Associate in Science (A.S.) Degree

The Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See SCC graduation requirements.

Aircraft Dispatcher

Associate in Science Degree

Program Information

Sacramento City College maintains a Federal Aviation Administration (FAA) authorized 14 CFR Part 65 Aircraft Dispatcher (AD) Program. Our one-year certificate and two-year degree programs are designed to meet the needs of students who desire the technical training in order to qualify for the written, oral, and practical tests for the FAA Aircraft Dispatcher Certificate.

This is an intensive aviation program that brings participants with little or no aviation knowledge up to a knowledge level required by working aviation professionals. The program is taught in a three-semester sequence cohort, with 15 credit units per semester for the first two semesters, and 3-6 credit units for the final semester. It is recommended that all general education requirements for the degree be completed before registering for the aviation-specific cohort classes.

All required courses must be passed with a grade of “C” or better. In the final semester, students will be required to take the FAA Aeronautical Knowledge Test for Aircraft Dispatcher (ADX written). Students must be 21 years of age to take the exam. This exam is given on a PASS/FAIL basis by testing centers authorized by the FAA but not affiliated with Sacramento City College. Costs for the exam currently range from \$150-\$165.

Students who successfully complete the FAA written exam and complete the program are eligible to take the FAA Practical Exam. In accordance with FAA regulations, the authorization to take the exam is valid for 90 days after completion of the course. Sacramento City College normally makes arrangements to have an FAA Dispatch Examiner present at the college within that window. Costs for the Dispatch Practical Exam range from \$500 to \$750.

Upon passing the FAA Practical Exam, graduates aged 23 years or more are certificated to perform the duties of an aircraft dispatcher for a 14 CFR Part 121 Air Carrier. Those who have not reached age 23 are issued an FAA Letter of Competency which may be presented to any FAA Flight Standards Office for issuance of the Aircraft Dispatcher certificate on or after their 23rd birthday.

Career Opportunities

Aircraft Dispatchers are employed by all major and regional airlines worldwide. Many jet charter and helicopter air ambulance operators, as well as government agencies and the military, utilize their services.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The Federal Aviation Administration requires that all applicants read, write, speak, and understand the English language. FAA guidance on language proficiency can be found in the current version of Advisory Circular AC60-28 and the Level 4 proficiency standards of ICAO Doc 9835.
- Successful completion of one of the prerequisite course; FLTEC 100 Introduction to Aviation Careers or FLTEC 300 Introduction to Aviation.
- Students must complete FLTEC 314, Large Aircraft Systems and FLTEC 310, Instrument Pilot in the semester immediately prior to enrolling in ATCAD 310 Practical Dispatch, or complete a diagnostic assessment exam demonstrating sufficient retention of aviation knowledge from the Flight Technology core curriculum.
- The Federal Aviation Administration requires that applicants for the Aircraft Dispatcher written exam be at least 21 years of age. It is expected that students complete the exam before the midway point of the final course in the program (ATCAD 310 Practical Dispatch).

Upon completion of this program, the student will be able to:

- perform the required duties of an Aircraft Dispatcher, as outlined by the Federal Aviation Administration.
- demonstrate a readiness to take the oral and practical examinations for the Federal Aviation Administration’s aircraft dispatcher certificate.
- apply concepts learned such as weather analysis, large aircraft systems, regulations, and human factors to practical Aircraft Dispatcher problems.

Required Program

	Units
ATCAD 310 Aircraft Dispatcher Operations	3.5
FLTEC 100 Introduction to Aviation Careers (1)	1-3
or FLTEC 300 Introduction to Aviation (3)	
FLTEC 302 Aviation Weather	3
FLTEC 304 Safety and Human Factors in Aviation.....	3
FLTEC 306 Federal Aviation Regulations.....	3
FLTEC 310 Instrument Pilot/Instructor Ground School	4
FLTEC 312 Air Navigation, Airspace, and Communication.....	3
FLTEC 314 Large Aircraft Systems.....	5
FLTEC 321 Commercial Pilot Ground School	3
FLTEC 330 Airplane Aerodynamics.....	3

Total Units Required **31.5 – 33.5**

Associate in Science (A.S.) Degree

The Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See SCC graduation requirements.

Aircraft Dispatcher Certificate of Achievement

Program Information

Sacramento City College maintains a Federal Aviation Administration (FAA) authorized 14 CFR Part 65 Aircraft Dispatcher (AD) Program. Our one-year certificate and two-year degree programs are designed to meet the needs of students who desire the technical training in order to qualify for the written, oral, and practical tests for the FAA Aircraft Dispatcher Certificate.

This is an intensive aviation program that brings participants with little or no aviation knowledge up to a knowledge level required by working aviation professionals. The program is taught in a three-semester sequence cohort, with 15 credit units per semester for the first two semesters, and 3-6 credit units for the final semester. It is recommended

that all general education requirements for the degree be completed before registering for the aviation-specific cohort classes.

All required courses must be passed with a grade of “C” or better. In the final semester, students will be required to take the FAA Aeronautical Knowledge Test for Aircraft Dispatcher (ADX written). Students must be 21 years of age to take the exam. This exam is given on a PASS/FAIL basis by testing centers authorized by the FAA but not affiliated with Sacramento City College. Costs for the exam currently range from \$150-\$160.

Students who successfully complete the FAA written exam and complete the program are eligible to take the FAA Practical Exam. In accordance with FAA regulations, the authorization to take the exam is valid for 90 days after completion of the course. Sacramento City College normally makes arrangements to have an FAA Dispatch Examiner present at the college within that window. Costs for the Dispatch Practical Exam range from \$500 to \$750.

Upon passing the FAA Practical Exam, graduates aged 23 years or more are certificated to perform the duties of an aircraft dispatcher for a 14 CFR Part 121 Air Carrier. Those who have not reached age 23 are issued an FAA Letter of Competency which may be presented to any FAA Flight Standards Office for issuance of the Aircraft Dispatcher certificate on or after their 23rd birthday.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The Federal Aviation Administration requires that all applicants read, write, speak, and understand the English language. [14 CFR 65.53(b)(2)]
- Successful completion of one of the prerequisite courses; FLTEC 100 Introduction to Aviation Careers or FLTEC 300 Introduction to Aviation.
- Students must complete FLTEC 310, Instrument Pilot/Instructor Ground School and FLTEC 314, Large Aircraft Systems in the semester immediately prior to enrolling in ATCAD 310 Practical Dispatch, or complete a diagnostic assessment exam demonstrating sufficient retention of aviation knowledge from the Flight Technology core curriculum.
- The Federal Aviation Administration requires that applicants for the Aircraft Dispatcher written exam be at least 21 years of age. It is expected that students complete the exam before the midway point of the final course in the program (ATCAD 310 Practical Dispatch).

Gainful Employment

For more information about program costs, graduation rates, median debt of program graduates, and other important information regarding gainful employment, please visit: <http://www.losrios.edu/gainful-emp-info/gedt.php?major=051658C01>

Career Opportunities

Aircraft Dispatchers are employed by all major and regional airlines worldwide. Many jet charter and helicopter air ambulance operators, as well as government agencies and the military, utilize their services.

Required Program

	Units
ATCAD 310 Aircraft Dispatcher Operations	3.5
FLTEC 100 Introduction to Aviation Careers (1)	1-3
or FLTEC 300 Introduction to Aviation (3)	
FLTEC 302 Aviation Weather	3
FLTEC 304 Safety and Human Factors in Aviation.....	3
FLTEC 306 Federal Aviation Regulations.....	3
FLTEC 310 Instrument Pilot/Instructor Ground School	4
FLTEC 312 Air Navigation, Airspace, and Communication.....	3
FLTEC 314 Large Aircraft Systems.....	5
FLTEC 320 Private Pilot Ground School	3
FLTEC 321 Commercial Pilot Ground School	3
FLTEC 330 Airplane Aerodynamics.....	3

Total Units Required **34.5 – 36.5**

Certificate of Achievement

The Certificate of Achievement may be obtained by completion of the required program with grades of “C” or better.

Flight Technology

Associate in Science Degree

Program Information

The Flight Technology A.S. Degree program is designed for students who want to pursue professional careers in aviation flight operations, or who wish to continue their aviation studies in a baccalaureate program. During the course of the program the student will qualify to take the written portions of the FAA Private, Instrument, Commercial Pilot, Basic and Advanced Ground Instructor and the Certified Flight Instructor Instrument examinations. Examinations are given at FAA-authorized locations not related to the college. Each exam is given on a PASS/FAIL basis, and costs between \$150 and \$200. Results of the exams are valid for 2 years after the date of examination.

This is an intensive, broad-based aviation program that brings participants with little or no aviation knowledge up to a knowledge level required by working aviation professionals. The program is taught in cohorts, with 12 to 15 credit units per semester. It is recommended that all general education requirements for the degree be completed before registering for aviation-specific cohort classes.

Career Opportunities

Professional Pilots are employed as Charter Pilots, Flight Instructors, Ground Instructors, Agricultural Pilots, Helicopter Pilots, Flight Engineers, and Regional Airline/Major Airline Pilots, as well as working for Government Agencies or the Military.

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The Federal Aviation Administration requires (AC 60-28) that all applicants read, write, speak, and understand the English language.
- Successfully complete the one of the prerequisite courses; FLTEC 100 Introduction to Aviation Careers or FLTEC 300 Introduction to Aviation. Or
- Hold an FAA or ICAO-compliant Private Pilot certificate. Or
- Have documented significant and recent (within the last 5 years) military or civilian aviation operations experience.

Upon completion of this program, the student will be able to:

- demonstrate the knowledge and skills to qualify for the written portions of the Federal Aviation Administration examinations for pilot and instructor.
- perform navigational pre-flight planning.
- assemble and analyze terminal and en-route weather data.
- calculate departure, en-route, and arrival performance data.
- assess risk factors to aircraft operations and apply the appropriate safety and communications protocols to mitigate the risks.

Required Program

Units

FLTEC 300 Introduction to Aviation.....	3
FLTEC 302 Aviation Weather	3
FLTEC 304 Human Factors and Risk Management in Aviation	3
FLTEC 306 Federal Aviation Regulations.....	3
FLTEC 310 Instrument Pilot/Instructor Ground School	4
FLTEC 312 Air Navigation, Airspace, and Communication.....	3
FLTEC 314 Large Aircraft Systems.....	5
FLTEC 320 Private Pilot Ground School	3
FLTEC 321 Commercial Pilot Ground School	3
FLTEC 330 Airplane Aerodynamics.....	3

Total Units Required

33

Suggested Elective

FLTEC 319

Associate in Science (A.S.) Degree

The Associate in Science (A.S.) Degree may be obtained by completion of the required program, plus general education requirements, plus sufficient electives to meet a 60-unit total. See SCC graduation requirements.

Flight Technology

Certificate of Achievement

Program Information

Sacramento City College maintains one-year certificate and two-year degree programs organized to offer pilot academic ground instruction. The Flight Technology Program is a 33 unit, 10 course program.

All required courses must be passed with a grade of “C” or better.

During the course of the program the student will qualify to take the written portions of the FAA Private, Instrument, Commercial Pilot, Basic and Advanced Ground Instructor and the Certified Flight Instructor Instrument examinations. Examinations are given at FAA-authorized locations not related to the college. Each exam is given on a PASS/FAIL basis, and costs between \$150 and \$200. Results of the exams are valid for 2 years after the date of examination.

This is an intensive, broad-based aviation program that brings participants with little or no aviation knowledge up to a knowledge level required by working aviation professionals. The program is taught in cohorts, with 12 to 15 credit units per semester.

Career Opportunities

Professional Pilots are employed as Charter Pilots, Flight Instructors, Ground Instructors, Agricultural Pilots, Helicopter Pilots, Flight Engineers, and Regional Airline/Major Airline Pilots, as well as working for Government Agencies or the Military.

Gainful Employment

For more information about program costs, graduation rates, median debt of program graduates, and other important information regarding gainful employment, please visit: <http://www.losrios.edu/gainful-emp-info/gedt.php?major=051350C01>

Enrollment Eligibility

To be eligible for enrollment in the program, the student must meet the following criteria:

- The Federal Aviation Administration requires (AC 60-28) that all applicants read, write, speak, and understand the English language.
- Successfully complete the one of the prerequisite courses; FLTEC 100 Introduction to Aviation Careers or FLTEC 300 Introduction to Aviation. Or
- Hold an FAA or ICAO-compliant Private Pilot certificate. Or
- Have documented significant and recent (within the last 5 years) military or civilian aviation operations experience.

Upon completion of this program, the student will be able to:

- demonstrate the required knowledge and skills in order to qualify for the written portions of the Federal Aviation Administration examinations for pilot and instructor.
- perform navigational pre-flight planning.
- assemble and analyze terminal and en-route weather data.
- calculate departure, en-route, and arrival performance data.
- assess risk factors to aircraft operations and apply the appropriate safety and communications protocols to mitigate the risks.

Required Program	Units
FLTEC 300 Introduction to Aviation.....	3
FLTEC 302 Aviation Weather	3
FLTEC 304 Human Factors and Risk Management in Aviation	3
FLTEC 306 Federal Aviation Regulations.....	3
FLTEC 310 Instrument Pilot/Instructor Ground School	4
FLTEC 312 Air Navigation, Airspace, and Communication.....	3
FLTEC 314 Large Aircraft Systems.....	5
FLTEC 320 Private Pilot Ground School	3
FLTEC 321 Commercial Pilot Ground School	3
FLTEC 330 Airplane Aerodynamics.....	3
Total Units Required	33

Certificate of Achievement

The Certificate of Achievement may be obtained by completion of all courses in the required program with grades of “C” or better.

**Air Traffic Control
Aircraft Dispatcher (ATCAD)**

ATCAD 300 Basic Terminal Procedures 3.5 Units

Prerequisite: FLTEC 302, 304, 306, 310, 312, 314, 320, 321, and 330 with grades of “C” or better

Course Transferable to CSU

Hours: 45 hours LEC; 54 hours LAB

This course provides lecture and simulator lab experience in the fundamental concepts of procedures and skills related to Terminal Radar Control (TRACON) operations. Areas such as aircraft identification, voice communication, phraseology, facility and inner-facility coordination, strip markings, airport traffic control, and TRACON functions will be taught and practiced.

ATCAD 301 Advanced Terminal Procedures 3.5 Units

Prerequisite: ATCAD 300, FLTEC 302, FLTEC 304, FLTEC 306, FLTEC 310, FLTEC 312, FLTEC 314, FLTEC 320, FLTEC 321, and FLTEC 330 with grades of “C” or better

Course Transferable to CSU

Hours: 45 hours LEC; 54 hours LAB

This course continues the training of ATCAD 300 with lecture and simulator lab experience in more advanced concepts of procedures and skills related to Terminal Radar Control (TRACON) operations. Advanced topics in aircraft identification, voice communication, phraseology, facility and inner-facility coordination, strip markings, air traffic control, TRACON functions, runway visibility, weather observations, communication failures, and emergencies will be taught and practiced. One field trip to an operating TRACON facility may be scheduled.

ATCAD 302 Basic En Route Procedures 3.5 Units

Prerequisite: FLTEC 302, 304, 306, 310, 312, 314, 320, 321, and 330 with grades of “C” or better

Course Transferable to CSU

Hours: 45 hours LEC; 54 hours LAB

This course provides lecture and simulator lab experience in the fundamental rules and procedures required in the en route environment. Areas such as air-to-ground and ground-to-air communications, radar control, Visual Flight Rules (VFR) and Instrument Flight Rules (IFR) en route procedures, aircraft identification, voice communications, phraseology, facility and inter-facility coordination, strip markings, and clearances will be taught and practiced.

ATCAD 303 Advanced En Route Procedures 3.5 Units

Prerequisite: ATCAD 302, FLTEC 302, FLTEC 304, FLTEC 306, FLTEC 310, FLTEC 312, FLTEC 314, FLTEC 320, FLTEC 321, and FLTEC 330 with grades of “C” or better

Course Transferable to CSU

Hours: 45 hours LEC; 54 hours LAB

This course is a continuation of ATCAD 302 provides lecture and simulator lab experience in advanced rules and procedures required in the en route environment. Areas such as air-to-ground and ground-to-air communication, radar control, Visual Flight Rules (VFR) and Instrument Flight Rules (IFR) en route procedures, aircraft identification, communication failures, clearances, strip markings, radio and satellite navigation systems, aviation weather services, and emergency procedures in complex airspaces and across multiple positions will be taught and practiced.

ATCAD 310 Aircraft Dispatcher Operations 3.5 Units

Prerequisite: FLTEC 302, 304, 306, 310, 312, 314, 320, 321, and 330 with grades of “C” or better

Course Transferable to CSU

Hours: 45 hours LEC; 54 hours LAB

This course will allow the student to practice actual flight briefings as an aircraft dispatcher to a simulated flight crew under various conditions. Required briefings will include weather, performance data, weight and balance calculations, and special conditions of the flight.

Flight Technology (FLTEC)

FLTEC 100 Introduction to Aviation Careers 1 Unit

Prerequisite: None.

Hours: 18 hours LEC

This introductory course is designed for potential aviation career professionals such as pilots, air traffic controllers, and aircraft dispatchers. In this course, students will explore the fundamentals of aircraft operations as well as the history and development of the aviation industry. The students will also explore and learn the requirements for completing the AS degree in Air Traffic Control, Aircraft Dispatch, and Flight Technology. A final grade of “C” or better and completion of the Computerized Placement Testing series is necessary to move on to FLTEC 302, 306, 312, 320, and 330.

FLTEC 294 Topics in Aeronautics, Flight Technology .5-4 Units

Prerequisite: None.

Hours: 72 hours LEC

This is a specialized course developed in conjunction with industry partners to address emerging training needs.

FLTEC 300 Introduction to Aviation 3 Units

Prerequisite: None.

Course Transferable to CSU

Hours: 54 hours LEC

This introductory course is designed for aviation career professionals such as pilots, air traffic controllers, aircraft dispatchers, and aircraft technicians. This course will explore the fundamentals of aircraft and spacecraft flight as well as the history and development of the aviation industry.

FLTEC 302 Aviation Weather 3 Units

Prerequisite: FLTEC 100 or 300 with a grade of "C" or better

Course Transferable to CSU

Hours: 54 hours LEC

This aviation related meteorology course is designed for pilots, air traffic controllers, and aircraft dispatchers. It covers basic weather phenomena, hazards, and prognostics as they apply to flight. Use and interpretation of Federal Aviation Administration (FAA) and National Weather Service (NWS) meteorological services are also explained.

FLTEC 303 Remote Pilot – Small Unmanned Aircraft Systems 3 Units

Prerequisite: None.

Advisory: The minimum age for issuance of an FAA Remote Pilot – sUAS certificate is 16 years of age. Certificates are issued subject to the results of a Transportation Security Administration personal threat assessment.

Course Transferable to CSU

Hours: 54 hours LEC

This course prepares the student to take the FAA aeronautical knowledge test that is required for the issuance of a Remote Pilot – Small Unmanned Aircraft Systems certificate. Topics include federal and state regulations governing the use of Unmanned Aircraft Systems, airspace and aeronautical chart reading, aviation weather, and crew resource management.

FLTEC 304 Human Factors and Risk Management in Aviation 3 Units

Prerequisite: FLTEC 320 with a grade of "C" or better

Course Transferable to CSU

Hours: 54 hours LEC

This course provides an overview of human factors that relate to aviation operations safety, risk evaluation and management, aeronautical decision making, and crew resource management. These factors will be used in analyzing how humans contribute to aircraft accidents and in developing risk management strategies.

FLTEC 305 Remote Pilot Flight Operations 3 Units

Prerequisite: Must meet one of the following: Successful completion of or concurrent enrollment in FLTEC 303, or hold a current FAA Remote Pilot-Small Unmanned Aircraft Systems certificate.

Enrollment Limitation: Performance of actual flights are subject to acceptable weather and airspace conditions. If the instructor or instructional assistant observes a student operating an aircraft in an unsafe manner or a manner contrary to the requirements of 14 CFR Part 107 or the SCC Flight Operations Manual, the student will be removed from the course.

Course Transferable to CSU

Hours: 24 hours LEC; 90 hours LAB

This course is designed to give students practical experience in conducting commercial unmanned aerial vehicle flight operations. Students will develop basic flying skills and experience with small multi-rotor and fixed-wing unmanned aircraft. The course also includes gaining experience in developing and utilizing flight operations documentation and checklists. Students will be able to utilize these skills when using commercial UAV systems in a variety of future employment and research opportunities.

FLTEC 306 Federal Aviation Regulations 3 Units

Prerequisite: FLTEC 100 or 300 with a grade of "C" or better

Course Transferable to CSU

Hours: 54 hours LEC

This course is an in-depth study of Title 14 of the Code of Federal Regulations, Parts 1, 5, 43, 61, 65, 68, 71, 73, 91, 110, 117, 119, 121, and 135, Letters of Agreement, Standard Operating Procedures, Aeronautical Information Manual (AIM), Title 49 Sections related to Aviation Security and the Safe Transport of Dangerous Goods by Air, and the National Transportation Safety Board (NTSB) 830 for reporting aircraft accidents.

FLTEC 310 Instrument Pilot/ Instructor Ground School 4 Units

Prerequisite: FLTEC 320 with a grade of "C" or better, or hold FAA

Private Pilot Certificate, or successfully completed FAA Private Pilot Knowledge exam.

Course Transferable to CSU

Hours: 72 hours LEC

This course is an introduction to the principles of instrument flying to include: Instrument Flight Rules (IFR), instruments, meteorology, navigation, IFR approaches, IFR departures, IFR enroute, communications, air traffic control, and aero medical factors. This course meets the Federal Aviation Administration (FAA) requirements for Instrument Pilot, Instrument Ground Instructor, and Instrument Flight Instructor written exam eligibility.

FLTEC 311 Aerial Photography- Remote System 3 Units

Same As: PHOTO 341

Prerequisite: PHOTO 302 and 312 with grades of "C" or better;

equivalent or technical competency determined by a photography department faculty member upon evaluation of photography portfolio.

Enrollment Limitation: Students must hold a current FAA Remote Pilot-Small Unmanned Aircraft Systems certificate to participate in class.

Course Transferable to CSU

Hours: 36 hours LEC; 54 hours LAB

This course will prepare and train students in the latest aerial data capture and imaging techniques used commercially with remote drone pilots. The course is designed for those already certified by the FAA (Remote Pilot – Small UAS under 14 CFR Part 107) and pursuing competent skills in both navigating while simultaneously capturing and imaging destinations and activities specific to their industry. Topics include individual or team flight capture and imaging techniques, video vs. still capture compositions, effective gimbal operation and dynamic preprogrammed flight capture. The course will also train students to edit and merge content for presentation in person and on the Internet. Credit may be earned for either PHOTO 341 or FLTEC 311 but not for both.

FLTEC 312 Air Navigation, Airspace, and Communication 3 Units

Prerequisite: FLTEC 100 or 300 with a grade of "C" or better

Course Transferable to CSU

Hours: 54 hours LEC

This course is designed to teach the aeronautics student the basics of navigation, airspace, and communication. The fundamentals of pilotage, dead reckoning, radio navigation using ground and spaced-based aids, and internal long-range navigation systems will be applied to flight planning. Requirements for airspace and air traffic controller communication will be covered.

FLTEC 314 Large Aircraft Systems 5 Units

Prerequisite: FLTEC 310, 320, and 330 with grades of "C" or better; or has documented evidence of the aviation experience requirements of 14 CFR 65.57(a).

Course Transferable to CSU

Hours: 90 hours LEC

This Boeing 7XX Series general familiarization course is designed for students desiring to become pilots, air traffic controllers, air dispatchers, turbojet flight engineers, or technicians on large, complex aircraft typically flown by the airline industry. All Boeing systems will be covered in detail such as: avionics, hydraulics, pneumatics, pressurization, air conditioning, electrics, fire protection, ice and rain protection, engine operation, flight performance, and take-off and landing data. Weight and balance computations and emergency procedures will also be included.

FLTEC 319 Fundamentals of Instruction for Aviation Instructors 3 Units

Prerequisite: None.

Advisory: COMM 301 and FLTEC 320 with grades of "C" or better.

Students should have at least one year of specific aviation technical experience as well as one FAA airman certificate such as: Private Pilot, Airframe and Powerplant Mechanic, Aircraft Dispatcher, Air Traffic Controller, Parachute Rigger, Navigator, or Flight Engineer.

Course Transferable to CSU

Hours: 54 hours LEC

This course provides in-depth instruction in the Fundamentals of Instruction (FOI) for aviation flight and ground instructors as required by the Federal Aviation Administration (FAA), under Part 61 of Title 14 of the Code of Federal Regulations. Students will be required to develop detailed written syllabi and deliver an oral presentation that meets FAA standards of instruction.

FLTEC 320 Private Pilot Ground School 3 Units

Prerequisite: None.

Course Transferable to CSU

Hours: 54 hours LEC

The basic principles of flight, meteorology, navigation, communication, weight and balance, aircraft systems and instruments, performance, flight procedures, air traffic control, and regulations will be explained. The course provides the necessary information that will enable the student to be eligible to take the Private Pilot, Sport Pilot, and basic Certificated Ground School Instructor knowledge exam.

FLTEC 321 Commercial Pilot Ground School 3 Units

Prerequisite: FLTEC 320 with a grade of "C" or better; or Instructor's Permission.

Course Transferable to CSU

Hours: 54 hours LEC

This course is an in-depth study of the principles of meteorology, aviation, navigation, communication, advanced weight and balance, aircraft structures, aircraft systems, instruments, performance, theory of flight, and Federal Aviation Regulations (FAR). This course meets the Federal Aviation Administration (FAA) eligibility requirements for Commercial Pilot and/or Advanced Ground School Instructor written exam.

FLTEC 330 Airplane Aerodynamics 3 Units

Prerequisite: FLTEC 100 or 300 with a grade of "C" or better

Course Transferable to CSU

Hours: 54 hours LEC

This course provides in-depth instruction in the fundamentals of aerodynamics, nomenclature, common maneuvers, and emergency concerns for airplanes. This course is appropriate for pilots, flight instructors, aircraft mechanics, air traffic control specialists, or aircraft dispatchers.

FLTEC 340 Helicopter Aerodynamics 3 Units

Prerequisite: None.

Advisory: FLTEC 320 with a grade of "C" or better

Course Transferable to CSU

Hours: 54 hours LEC

This course is designed to provide in-depth instruction in the fundamentals of aerodynamics, nomenclature, common maneuvers, and emergency concerns for helicopters. This course would be appropriate for students pursuing a helicopter pilot and/or flight instructor, aircraft mechanic, or air traffic control and/or aircraft dispatcher certificate.

FLTEC 350 Private Pilot-Helicopter Flight Techniques 3 Units

Prerequisite: FLTEC 100, 302, 304, 306, 312, 320, and 330 with grades of "C" or better

Enrollment Limitation: If student is not a U.S. Citizen the student must complete the required Transportation Security Administration background check prior to enrollment. Student must obtain required FAA Medical Certificate verifying student meets current FAA medical fitness requirements. Student must read, write, and speak the English language.

Course Transferable to CSU

Hours: 162 hours LAB

The course will provide the flight training and experience required to safely exercise the privileges and responsibilities of a helicopter Private Pilot. Course content includes instruction in aerodynamics, aircraft systems, Federal Aviation Administration regulations, U.S. Airspace System, weight and balance, aircraft performance, aviation weather, flight publications, radio navigation, cross-country planning and navigation, basic flight physiology, and flight safety. The student must complete the appropriate flight lessons and receive FAA Private Pilot certification to satisfactorily complete the course.

FLTEC 352 Instrument Pilot-Helicopter Flight Techniques 3 Units

Prerequisite: FLTEC 100, 302, 304, 306, 310, 312, 320, and 330 with grades of "C" or better

Enrollment Limitation: If student is not a U.S. Citizen the student must complete the required Transportation Security Administration background check prior to enrollment. Student must obtain required FAA Medical Certificate verifying student meets current FAA medical fitness requirements. Student must read, write, and speak the English language. Student must possess an FAA Private Pilot-Helicopter certificate. Student must have accrued required flight experience.

Course Transferable to CSU

Hours: 162 hours LAB

The course will provide the flight training and experience required to allow the addition of an Instrument-Rotorcraft rating to a student's existing pilot certificate. Course content includes instruction in aircraft systems, Federal Aviation Administration regulations, U.S. Airspace System, weight and balance, aircraft performance, aviation weather, flight publications, radio navigation, cross-country planning and navigation, basic attitude instrument flying, instrument approach procedures and techniques, and flight safety. The student must complete the appropriate flight lessons and receive FAA Instrument-Airplane certification to satisfactorily complete the course.

FLTEC 354 Commercial Pilot-Helicopter Flight Techniques 1 Unit

Prerequisite: FLTEC 100, 302, 304, 306, 312, 321, and 330 with grades of "C" or better

Enrollment Limitation: If student is not a U.S. Citizen the student must complete the required Transportation Security Administration background check prior to enrollment. Student must obtain required FAA Medical Certificate verifying student meets current FAA medical fitness requirements. Student must read, write, and speak the English language. Student must possess an FAA Private Pilot-Helicopter certificate. Student must have accrued required flight experience.

Course Transferable to CSU

Hours: 54 hours LAB

This course will provide the flight training and experience required to safely exercise the privileges and responsibilities of a helicopter Commercial Pilot. Course content includes instruction in Federal Aviation Administration regulations, U.S. Airspace System, weight and balance, helicopter performance, aviation weather, flight publications, radio navigation, cross-country planning and navigation, complex and high-performance helicopter systems and operation, and flight safety. The student must complete the appropriate flight lessons and receive FAA Commercial Pilot-Rotorcraft certification to satisfactorily complete the course.

FLTEC 360 Private Pilot-Airplane Flight Techniques 3 Units

Prerequisite: FLTEC 100 or 300 with a grade of "C" or better

Enrollment Limitation: If student is not a U.S. Citizen, the student must complete the required Transportation Security Administration background check prior to enrollment. Student must obtain an FAA Medical Certificate verifying that the student meets current FAA medical fitness requirements. 14 CFR requires that the student must read, write, speak and understand the English language. FAA guidance on language proficiency can be found in the current version of Advisory Circular AC60-28 and the Level 4 proficiency standards of ICAO Doc 9835.

Course Transferable to CSU

Hours: 162 hours LAB

The course will provide the flight training and experience required to safely exercise the privileges and responsibilities of an airplane Private Pilot. Course content includes instruction in aerodynamics, aircraft systems, Federal Aviation Administration regulations, U.S. Airspace System, weight and balance, aircraft performance, aviation weather, flight publications, radio navigation, cross-country planning and navigation, basic flight physiology, and flight safety. The student must complete the appropriate flight lessons and receive FAA Private Pilot certification to satisfactorily complete the course.

FLTEC 362 Instrument Pilot-Airplane Flight Techniques 3 Units

Prerequisite: FLTEC 100, 302, 304, 306, 310, 312, 320, and 330 with grades of "C" or better

Enrollment Limitation: If student is not a U.S. Citizen, the student must complete the required Transportation Security Administration background check prior to enrollment. The student must obtain an FAA Medical Certificate verifying that the student meets current FAA medical fitness requirements. 14 CFR requires that the student must read, write, speak and understand the English language. FAA guidance on language proficiency can be found in the current version of Advisory Circular AC60-28 and the Level 4 proficiency standards of ICAO Doc 9835. The student must possess an FAA Private Pilot-Airplane certificate. The student must have accrued required flight experience by 14 CFR Part 61.

Course Transferable to CSU

Hours: 162 hours LAB

The course will provide the flight training and experience required to allow the addition of an Instrument-Airplane rating to a student's existing pilot certificate. Course content includes instruction in aircraft systems, Federal Aviation Administration regulations, U.S. Airspace System, weight and balance, aircraft performance, aviation weather, flight publications, radio navigation, cross-country planning and navigation, basic attitude instrument flying, instrument approach procedures and techniques, and flight safety. The student must complete the appropriate flight lessons and receive FAA Instrument-Airplane certification to satisfactorily complete the course.

FLTEC 364 Commercial Pilot-Airplane Flight Techniques 2 Units

Prerequisite: FLTEC 302, 304, 306, 312, 321, 330, 360, and 362 with grades of "C" or better; Must hold or obtain an FAA First or Second Class medical certificate issued under 14 CFR Part 67.

Enrollment Limitation: If student is not a U.S. Citizen, the student must complete the required Transportation Security Administration background check prior to enrollment. Student must obtain the required FAA Medical Certificate verifying that the student meets current FAA medical fitness requirements. 14 CFR requires that the student must read, write, speak and understand the English language. FAA guidance on language proficiency can be found in the current version of Advisory Circular AC60-28 and the Level 4 proficiency standards of ICAO Doc 9835. Student must possess an FAA Private Pilot-Airplane certificate. Student must have accrued required flight experience as required by 14 CFR Part 61.

Course Transferable to CSU

Hours: 108 hours LAB

This course further develops and refines the knowledge and skills of pilots desiring careers as professional pilots. Course content includes instruction in Federal Aviation Administration regulations, U.S. Airspace System, weight and balance, aircraft performance, aviation weather, flight publications, radio navigation, cross-country planning and navigation, complex and high-performance aircraft systems and operation, and flight safety. The student must complete the appropriate flight lessons and receive FAA Commercial Pilot-Airplane certification to satisfactorily complete the course.

FLTEC 499 Experimental Offering in Flight Technology .5-4 Units

Prerequisite: None

Course Transferable to CSU

Hours: 54 hours LEC