

# AVIATION AND TRAVEL CAREERS

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Division: Career Technical Education

Career Technical Education (<https://www.cypresscollege.edu/academics/divisions-special-programs/career-technical-education/>)

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## Articulation Agreements

Articulation agreements are in existence for transfer programs to the following universities:

- California State University, Los Angeles
- San Jose State University
- Southern Illinois University

Students should consult a counselor or [www.assist.org](http://www.assist.org) (<http://www.assist.org>) for lower division major requirements for most California public universities. (See the Standard Definitions section of the catalog for a description of ASSIST.) Students transferring to an independent college/university should consult the catalog of the individual school and a counselor for lower division major requirements.

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## Air Force Reserve Officers Training Corps (AFROTC)

Through arrangements with the University of Southern California (USC) and Loyola Marymount University (LMU), three- and four-year Air Force Reserve Officers Training Corps (AFROTC) programs are available to all qualified students at Cypress College. For additional information, visit [www.afrotc.com](http://www.afrotc.com) (<https://www.afrotc.com/>).

Academic units earned in this program are counted as elective units toward fulfillment of graduation requirements. Successful completion of the AFROTC programs leads to a commission as an officer in the United States Air Force. Those students who qualify and desire to enter Air Force pilot training will be given flight instruction in either the two- or four-year program. Competitive scholarships are available to qualified students. All scholarship students receive tuition, laboratory and book fees, and \$350–\$500 a month. For additional information, contact the Department of Aerospace Studies (AFROTC) at Loyola Marymount at (310) 338-2770, or UCLA at (310) 825-1742 ([www.afrotc.ucla.edu](http://www.afrotc.ucla.edu) (<http://www.afrotc.ucla.edu/>)), or USC at (213) 740-2670.

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## Certified Pilots – Credit By Examination

The Commercial Pilot program at Cypress College is intended to prepare a student for employment in the aviation industry. Although the college offers only ground instruction and ground trainer instruction, it is recognized that flight training and pilot certificates are also required for employment.

In order to complete qualifications for employment, the student arranges for, and secures, the flight training necessary for the needed pilot certificates and ratings. Cypress College and the North Orange County Community College District assume no responsibility or liability for the flight training so obtained.

Pilot certificates and ratings issued to the student by the Federal Aviation Administration will be used as evidence and certification of competency. A maximum of 12 units will be granted via Credit by Examination.

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## Aviation and Travel Careers Transfer Programs

Students should consult a counselor or [www.assist.org](http://www.assist.org) (<https://www.assist.org/>) for lower division major requirements for most California public universities. (See the Standard Definitions section of the catalog for a description of ASSIST.) Students transferring to an independent college/university should consult the catalog of the individual school and a counselor for lower division major requirements.

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## Aviation and Travel Careers Program

The Aviation and Travel Careers Program provides students with a career path for attaining the communication skills, practical knowledge, and technical training necessary to work in the aviation and travel industries.

## Associate in Science Degrees

- Airline Customer Services
- Aviation Management
- Commercial Pilot
- Flight Attendant
- Travel/Tourism

- UAV/UAS (Drone)
- Career Technical Education - Aviation
- Career Technical Education - Homeland Security
- Career Technical Education - Tourism

## Certificates

- Advanced Airline Customer Services
- Advanced Flight Attendant
- Advanced Travel/Tourism
- Advanced UAV/UAS (Drone)
- Aviation I – Private Pilot
- Aviation II – Instrument Pilot
- Aviation III – Commercial Pilot
- Aviation IV – Advanced Pilot
- Aviation Management
- Basic Airline Customer Services
- Basic Airport Operations
- Basic Cruise Line Sales and Operations
- Basic Flight Attendant
- Basic Tourism and Conference Management
- Basic Travel/Tourism
- Basic UAV/UAS (Drone)
- Homeland Transportation Security Certificate

- Basic Cruise Line Sales and Operations (15 units)
- Basic Tourism and Conference Management (15 units)
- Homeland Transportation Security Certificate (15 units)

<sup>1</sup> Most of the courses required for the ancillary certificates may be applied to one or more of the above degrees.

Students are encouraged to meet with a counselor early in their program studies to optimize their schedules and to reduce the time it takes to complete a program. Students may dual major.

- Advanced Airline Customer Services Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/advanced-airline-customer-services-certificate/>)
- Advanced Flight Attendant Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/advanced-flight-attendant-certificate/>)
- Advanced Travel/Tourism Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/advanced-travel-tourism-certificate/>)
- Airline Customer Services Associate in Science Degree (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/airline-customer-services-associate-in-science-degree/>)
- Aviation I - Private Pilot Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/aviation-i-private-pilot-certificate/>)
- Aviation II - Instrument Pilot Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/aviation-ii-instrument-pilot-certificate/>)
- Aviation III - Commercial Pilot Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/aviation-iii-commercial-pilot-certificate/>)
- Aviation IV–Advanced Pilot Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/aviation-iv-advanced-pilot-certificate/>)
- Aviation Management Associate in Science Degree (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/aviation-management-associate-in-science-degree/>)
- Aviation Management Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/aviation-management-certificate/>)
- Basic Airline Customer Services Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/basic-airline-customer-services-certificate/>)
- Basic Airport Operations Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/basic-airport-operations-certificate/>)
- Basic Cruise Line Sales and Operations Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/basic-cruise-line-sales-operations-certificate/>)
- Basic Flight Attendant Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/basic-flight-attendant-certificate/>)
- Basic Tourism and Conference Management Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/basic-tourism-conference-management-certificate/>)

## Career and Degree Path Program Options

- Airline Customer Services Career/Degree Path:
  - A.S. Degree Airline Customer Services (Adv. Certificate + GE = 60 units)
  - Advanced Airline Customer Services Certificate (35 units)
  - Basic Airline Customer Services Certificate (18 units)
- Aviation Management Career/Degree Path:
  - A.S. Degree Aviation Management (Adv. Certificate + GE = 60 units)
  - Aviation Management Certificate (35 units)
- Commercial Pilot Career/Degree Path:
  - A.S. Degree Commercial Pilot (Aviation IV - Advanced Pilot + GE = 61 units)
  - Aviation I – Private Pilot (17-18 units)
  - Aviation II – Instrument Pilot (24-26 units)
  - Aviation III – Commercial Pilot (31-34 units)
  - Aviation IV – Advanced Pilot (35 units)
- Flight Attendant Career/Degree Path:
  - A.S. Degree Flight Attendant (Adv. Certificate + GE = 60 units)
  - Advanced Flight Attendant Certificate (35 units)
  - Basic Flight Attendant Certificate (18 units)
- Travel/Tourism Career/Degree Path:
  - A.S. Degree Travel/Tourism (Adv. Certificate + GE = 60 units)
  - Advanced Travel/Tourism Certificate (35 units)
  - Basic Travel/Tourism Certificate (18 units)
- UAV/UAS (Drone) Career/Degree Path:
  - A.S. Degree UAV/UAS (Adv. Certificate + GE = 60 units)
  - Advanced UAV/UAS Certificate (35 units)
  - Basic UAV/UAS Certificate (16 units)
- Ancillary Certificates<sup>1</sup>:

- Basic Travel-Tourism Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/basic-travel-tourism-certificate/>)
- Career Technical Education - Aviation Associate in Science Degree (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/career-technical-education-aviation-associate-in-science-degree/>)
- Career Technical Education - Tourism Associate in Science Degree (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/associate-in-science-degree-career-technical-education-tourism/>)
- Commercial Pilot Associate in Science Degree (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/commercial-pilot-associate-in-science-degree/>)
- Flight Attendant Associate in Science Degree (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/flight-attendant-associate-in-science-degree/>)
- Homeland Transportation Security Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/homeland-transportation-security-certificate/>)
- Travel/Tourism Associate in Science Degree (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/associate-science-degree-travel-tourism/>)
- UAS Drone Advanced Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/uav-uas-drone-advanced-certificate/>)
- UAS Drone Associate in Science Degree (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/uas-drone-associate-in-science-degree/>)
- UAS Drone Basic Certificate (<https://catalog.nocccd.edu/cypress-college/degrees-certificates/aviation-travel-careers/uas-drone-basic-certificate/>)

**ATC 050 C Special Projects 2 Units**

**Advisory:** Students must be concurrently enrolled in another ATC course. Term hours: 18 lecture and 54 laboratory TBA. This course provides students with opportunities to practice aviation and travel related principles and procedures in practical situations and simulations to develop industry related skills.

**ATC 100 C Introduction to Aviation 3 Units**

Term hours: 54 lecture. This course introduces students to the development of aviation and its importance in the economy. Special emphasis is placed on the history of aviation, the airlines, and general aviation. (CSU)

**ATC 101 C Introduction to Travel Careers 3 Units**

Term hours: 54 lecture. This course introduces students to career opportunities in the aviation and travel industries. Students will learn how to research and apply for jobs. The fundamentals of traveling will also be reviewed such as passport, visa, security, travel health and insurance. Students will prepare a personalized career project. (CSU)

**ATC 102 C Career Communication and Portfolio 3 Units**

Term hours: 54 lecture. In this course, students will develop their business communication skills in the development of a career portfolio, including a resume, cover letter, letters of recommendations, and work samples consistent with professional business conventions. Students will learn online application strategies, employment test-taking tips, and behavioral-based interviewing skills. (CSU)

**ATC 103 C Aviation and Travel Open Lab 0.5-3 Units**

**Corequisite(s):** Students must be enrolled in another ATC course.

Term hours: 27 to 162 laboratory depending on units attempted. This open entry, open exit course with flexible hours and variable units provides students enrolled in an Aviation & Travel Careers course with the equipment and resources to allow self-paced instruction and/or practice in core competencies. Twenty-four (24) hours are required for each one-half unit. May be taken for credit 3 times. Open Entry/Open Exit. \$5.00 Material Fee-Payable at Registration. (CSU)

**ATC 104 C Air Transportation 3 Units**

Term hours: 54 lecture. This course presents the development and current status of the air transportation industry, including aircraft types, airport facilities, State and Federal regulations, security issues, economic challenges, career opportunities, and the organization and function of the FAA, NTSB, IATA and ICAO. (CSU)

**ATC 112 C Homeland Security 3 Units**

Term hours: 54 lecture. This course is an introductory study of domestic and international threats of terrorism. It examines the concepts, definitions, and contemporary issues of modern terrorism. The course includes law enforcement issues for first-responders relating to terrorism, particularly with regard to Homeland Protection and counter terrorists' measures. (CSU)

**ATC 116 C Aviation and Transportation Security 3 Units**

Term hours: 54 lecture. This course is an introductory study of domestic and international airport and transportation security issues. It includes the Patriot Act and changing laws relating to airport and transportation security. The course will present and analyze the current status of aviation law pertaining to terrorism, air rage, search and seizure protections and impending changes to the nation's transportation industry. (CSU)

**ATC 118 C Disaster Preparedness Response 3 Units**

Term hours: 54 lecture. This course provides students with an awareness of natural and man-made incidents which result in catastrophic loss. Disaster scenarios will be examined from the perspective of preparedness, response and clean-up. Federal, state and local response preparedness programs will be a focus, including FEMA. Students will take part in simulated incidents, including safety and security for large-scale events. State and national incident command systems, S.E.M.S. and N.I.M.S., will be taught so as to familiarize the student to police and fire responses. (CSU) (UC)

**ATC 123 C Travel Sales and Tour Operations 3 Units**

Term hours: 54 lecture. In this course, students will learn the essentials of travel sales and tour operations, including the latest trends, itinerary planning, and the technologies available to travel/tourism consultants in the leisure, recreational, and corporate travel markets. (CSU)

**ATC 126 C Travel Management 3 Units**

Term hours: 54 lecture. This course is a study of management practices in the airline and travel/tourism industries, including ARC requirements, location and staffing, sales reports and agency accounting. Travel markets, product lines, marketing techniques, advertising, and promotions are explored. Techniques for personal and telephone selling and guidelines for handling job stress, sales, and client crises are included. Students will learn supervisory and leadership strategies. (CSU)

**ATC 132 C Private Pilot 4 Units**

Term hours: 54 lecture and 54 laboratory. This course provides students with an introduction to basic principles of aviation, meteorology, navigation, radio communication and Federal Aviation Regulations to qualify the student for the FAA Knowledge Examination for the Private Pilot Certificate and meets the FAA requirements for ground training. Pass/No Pass/Letter Grade Option.(CSU)

- ATC 136 C Air Navigation** **3 Units**  
**Advisory:** Concurrent enrollment in, or completion of, ATC 132 C, or completion of FAA Private Pilot Certificate, or taking flight lessons at a local flight school.  
 Term hours: 54 lecture. This course is a study of pilotage, dead reckoning, and radio navigation techniques; solution and application of navigation problems. This course meets partial fulfillment of the requirements of the FAA for ground training. (CSU)
- ATC 140 C Meteorology** **3 Units**  
**Advisory:** Completion of or concurrent enrollment in ATC 132 C, or completion of FAA Private Pilot Certificate, or taking flight lessons at a local flight school.  
 Term hours: 54 lecture. This is a course of study of weather recognition, icing, fog, fronts, clouds, weather maps and symbols, forecasting pressure patterns, wind systems, temperature-humidity-dew point relationships, precipitation, with emphasis on the practical application of this knowledge to safe flying practices. The services and assistance available from the U.S. Weather Bureau will be highlighted. The course meets the Meteorology requirements of the FAA for ground training. (CSU)
- ATC 144 C Aircraft and Engines** **3 Units**  
**Advisory:** Completion of or concurrent enrollment in ATC 132 C, or completion of FAA Private Pilot Certificate, or taking flight lessons at a local flight school.  
 Term hours: 54 lecture. This course is a study of the theory of flight, aircraft design, construction, operation limitations, repair and maintenance, maintenance records and aircraft accessories. Engine study includes principles of internal combustion engines, engine design and construction, fuel, lubrication and cooling systems, propellers, trouble shooting and preventive maintenance. This course meets partial fulfillment of the requirements of the FAA for ground training. (CSU)
- ATC 160 C UAS Drone Basic** **3 Units**  
 Term hours: 54 lecture. In this course, students prepare to meet the Federal Aviation Administration requirements for certification to operate Unmanned Aircraft Vehicles (UAVs) under 55 pounds in commercial operations. Emphasizes the safety, legal, and ethical requirements of operation in the public, civil, commercial and military settings. Includes core technologies including optics, sensors, power plants, control systems and communication technologies. (CSU)
- ATC 161 C UAS Drone Basic Simulator** **2 Units**  
**Advisory:** Concurrent enrollment or completion of ATC 160 C.  
 Term hours: 27 lecture and 27 laboratory. This course covers hands-on flight simulation activities to develop, practice, and optimize essential Unmanned Aircraft Systems pilot flight skills. Flight time in the approved ground trainers may be applied toward requirements for both attaining and maintaining flight ratings. (CSU)
- ATC 162 C UAS Drone Basic Flight** **2 Units**  
**Advisory:** Completion of or concurrent enrollment in ATC 160 C and ATC 161 C.  
 Term hours: 27 lecture and 27 laboratory. Flight time in the approved UAS Drone aircraft may be applied toward requirements for both attaining and maintaining flight ratings. (CSU)
- ATC 174 C Destin Americas and Europe** **3 Units**  
 Term hours: 54 lecture. This course introduces students to world geography from a travel and tourism perspective. Students will learn about domestic and international travel considerations including itineraries, currencies, travel documents, customs, language, health requirements, and time considerations for locations throughout the Americas and Europe. (CSU)
- ATC 175 C Destinations - Africa and Pacific** **3 Units**  
 Term hours: 54 lecture. This course continues the study of world geography from a travel and tourism perspective. Students will examine international travel considerations including itineraries, currencies, travel documents, customs, language, health requirements, and time considerations for the following locations: Africa, the Middle East, Asia, and the Pacific Islands. (CSU)
- ATC 180 C Tourism and Conference Management** **3 Units**  
 Term hours: 54 lecture. This course is an introductory study of meeting, convention, and event planning. Students will learn industry terminology, types of events and venues, needs assessments, program and budget development, and project coordination. (CSU)
- ATC 182 C Cultural Tourism** **3 Units**  
**Advisory:** Eligibility for College Writing or the equivalent writing skills.  
 Term hours: 54 lecture. This course examines the implications of cultural tourism in the United States. The course will consider the struggle of people to preserve their cultural identity relative to the role of the U. S. tourism industry in protecting cultural heritage, resources, and sites. The course promotes multicultural awareness, hospitality, and sensitivity as a means of recognizing others and minimizing the exploitation of their culture. The course establishes a learning environment encouraging critical thinking, cultural humility, and respect for people of diverse backgrounds and experiences. The course explores the complexities and challenges of U.S. policy making and preservation in cultural tourism development. (CSU,AA GE, SOC JUST).
- ATC 183 C Cust Care - Airline Travel** **3 Units**  
 Term hours: 54 lecture. This course examines the priority of customer service and satisfaction in the competitive airline industry. Topics include the safety regulations and service standards of the Federal Aviation Administration, the Department of Transportation, and airlines themselves. Students will study these standards in relation to current performance, public opinion, and service ideology. Students will also investigate how airlines differentiate their service to be competitive in a particular market niche. (CSU)
- ATC 189 C Flight Training Device - Introduction** **0.5 Units**  
 Term Hours: 27 laboratory. Students will receive a hands-on introduction to a PC-based Flight Training Device and become familiar with the fundamentals of flight, flight terminology, flight controls, and instrument interpretations. Pass/No Pass/Letter Grade Option. (CSU)
- ATC 190 C Flight Traing - Private Pilot** **2 Units**  
**Prerequisite(s):** Students must already possess and provide substantiation of an FAA Private Pilot Certificate or concurrent enrollment in an approved flight training program working toward an FAA Private Pilot Certificate, and completion of or concurrent enrollment in at least 3 units of ATC (132 or above) with a "grade of C or better."  
 Term hours: 108 laboratory TBA Hours as required by the FAA. Students who have earned, or are enrolled in an approved flight school and will earn, the FAA Private Pilot Certificate may be granted college credit consistent with the Credit by Examination requirements published in the catalog. Pass/No Pass/Letter Grade Option (CSU)
- ATC 192 C Airline Reservations - SABRE** **3 Units**  
 Term hours: 36 lecture and 54 laboratory. This course is an introduction to SABRE, the computer reservations system used by major airlines and some travel consultants. Students will learn how to build PNR's (passenger name records), quote fares, and calculate prices through hands-on applications on computers. \$4.00 Material Fee-Payable at Registration. (CSU)



- ATC 193 C Flight Trng-Flight Instructor 1-5 Units**  
**Prerequisite(s):** Students must provide substantiation of an FAA Flight Instructor Rating, or concurrent enrollment in an approved flight training program working toward an FAA Flight Instructor Rating, and completion of or concurrent enrollment in at least 3 units of ATC (132 or above) with a grade of C or better.  
 Term hours: 54-270 Laboratory TBA Hours as required by FAA. Students who have earned, or are enrolled in an approved flight school and will earn, an FAA Instructor Rating, may be granted college credit as follows: One unit of credit may be granted for each of the following Flight Instructor Certificates or Ratings: Airplane Single Engine, Airplane Multi-engine, Rotorcraft, Glider and Instrument. Credit may be granted by meeting the above prerequisites and the Credit by Examination procedures as published in this catalog. Pass/No Pass/Letter Grade Option. (CSU)
- ATC 194 C Flight Training Instrument Rating (formerly AVIA 194 C) 2 Units**  
**Prerequisite(s):** Completion of or concurrent enrollment: students must provide substantiation of an FAA Instrument Rating, or concurrent enrollment in an approved flight training program working toward an FAA Instrument Rating, and completion of or concurrent enrollment in at least 3 units of ATC (132 or above) with a grade of C or better  
 Term hours: 108 laboratory TBA Hours as required by FAA. Students who have earned, or are enrolled in an approved flight school and will earn, an FAA Instrument Rating on their Pilot Certificate may be granted college credit by meeting the above prerequisites and the Credit by Examination requirements as published in the current Cypress Catalog. Pass/No Pass/Letter Grade Option. (CSU)
- ATC 195 C Flight Training Commercial Pilot (formerly AVIA 195 C) 2 Units**  
**Prerequisite(s):** FAA Students must provide substantiation of an FAA Commercial Pilot Certificate, or concurrent enrollment in an approved flight training program working toward an FAA Commercial Pilot Certificate, and completion of or concurrent enrollment in at least 3 units of ATC (132 or above) with a grade of C or better.  
 Term hours: 108 laboratory TBA hours as required by FAA. Students who have earned, or are enrolled in an approved flight school and will earn, an FAA Commercial Pilot Certificate may be granted college credit by meeting the above prerequisites and the Credit by Examination requirements as published in the current Cypress Catalog. Pass/No Pass/Letter Grade Option. (CSU)
- ATC 196 C Flight Simulator Private Pilot 2 Units**  
**Advisory:** Concurrent enrollment in, or completion of, ATC 132 C, or completion of FAA Private Pilot Certificate, or taking flight lessons at a local flight school.  
 Term Hours: 27 lecture and 27 laboratory. In this course, students will participate in hands-on flight simulation activities to develop, practice, and optimize essential private pilot flight skills. Flight time in the approved ground trainers may be applied toward requirements for both attaining and maintaining flight ratings. (CSU)
- ATC 197 C Flight Simulator Instrument 2 Units**  
**Advisory:** Completion of or concurrent enrollment in ATC 132 C, or completion of FAA Private Pilot Certificate, or taking flight lessons at a local flight school.  
 Term Hours: 27 lecture and 27 laboratory. In this course, students will participate in hands-on flight simulation activities to develop, practice, and optimize essential instrument related flight skills. Flight time in the approved Flight Training Devices may be applied toward requirements for both attaining and maintaining flight ratings. Pass/No Pass or Letter Grade Option. (CSU)
- ATC 198 C Flight Simulator Commercial 2 Units**  
**Advisory:** Completion of or concurrent enrollment in ATC 132 C or completion of FAA Private Pilot Certificate and ATC 196 C and ATC 197 C, or the equivalent.  
 Term hours: 27 lecture and 27 laboratory. In this course, students will participate in hands-on flight simulation activities to develop, practice, and optimize essential commercial flight skills. Flight time in the approved Flight Training Devices (FTDs) may be applied toward requirements for both attaining and maintaining flight ratings. Pass/No Pass or Letter Grade Option. (CSU)
- ATC 199 C Flight Simulator Instructor 2 Units**  
**Advisory:** Completion of or concurrent enrollment in ATC 132 C or completion of FAA Private Pilot Certificate and ATC 196 C, ATC 197 C, and ATC 198 C.  
 Term hours: 27 lecture and 27 laboratory. In this course, students will participate in hands-on flight simulation activities to develop, practice, and optimize essential instructor flight skills. Flight time in the approved Flight Training Devices (FTDs) may be applied toward requirements for both attaining and maintaining flight ratings. (CSU)
- ATC 210 C Cabin Safety Simulation 0.5 Units**  
**Advisory:** Completion of, or concurrent enrollment in, ATC 270 C or ATC 274 C  
 Term hours: 9 lecture. In this course, students will participate in an aircraft emergency evacuation in a cabin simulator at the Long Beach Airport. A required 6-hour preparatory class will be held on campus and the remaining 3 hours will be delivered at the airport. Students will be provided a certificate upon successful completion. Facility Use Fee of \$100 required. Payable at registration. Fee subject to change by facility.(CSU)
- ATC 212 C Airline and Aviation Management 3 Units**  
 Term Hours: 54 lecture. In this course, students will study the application of management principles to the airlines and general aviation. Major areas of study include planning, organization, regulations, manpower management, facilities, marketing, budget, safety, security, and supervision strategies. (CSU)
- ATC 220 C Advanced Air Navigation 2 Units**  
**Prerequisite(s):** Completion of or concurrent enrollment in ATC 136 C.  
 Term Hours: 36 lecture. This is a course stressing advanced navigation procedures and principles including radio and electronic navigation aids, glass cockpit, flight management systems, international flight procedures, (ICAO, worldwide operations), Oceanic (Class II Navigation) and State (country) specific differences from United States FAA standards. Recency and other measures of readiness (CSU)
- ATC 223 C Cruise Line Sales and Operations 3 Units**  
 Term hours: 54 lecture. This course provides students with a practical, working knowledge of the cruise industry, including its operation, terminology, associations, and resources. Students will learn how to differentiate, price, market, and sell cruises. (CSU)
- ATC 232 C Instrument Rating 3 Units**  
**Advisory:** Completion of or concurrent enrollment in ATC 132 C, or completion of FAA Private Pilot Certificate, or taking flight lessons at a local flight school.  
 Term hours: 54 lecture. This course is designed to prepare or requalify the student in instrument flight procedures and techniques, including air traffic control, publications and regulations. This course reviews aeronautical ground training required to pass the FAA Instrument Pilot, Instrument Flight Instructor and Instrument Ground Instructor Knowledge Examinations. Flight time in a Flight Training Device is available by concurrent enrollment in ATC 196. Credit by Examination procedures as published in this catalog. (CSU)

**ATC 236 C Aerodynamics****3 Units**

**Advisory:** Concurrent enrollment in, or completion of, ATC 132 C or completion of FAA Private Pilot Certificate.

Term Hours: 54 lecture. In this course, students will learn the basic principles of aerodynamics, including airfoil shapes and characteristics, viscous effects, propellers, and aircraft performance viewed in terms of the basic laws of physics, aircraft limitations and Federal Aviation Regulations. Emphasis will be on physical aspects of flight time. (CSU)

**ATC 240 C Commercial Pilot (formerly Commercial Pilot Seminar)****3 Units**

**Advisory:** Concurrent enrollment in, or completion of, ATC 132 C or completion of FAA Private Pilot Certificate, or taking flight lessons at a local flight school.

Term hours: 54 lecture. This course prepares a pilot for the FAA Commercial Pilot license. The course covers current Federal Aviation Regulations, Government Publications, transport aircraft systems & performance, multi-engine procedures, loading, weight and balance & commercial operations. This course will prepare the pilot with the aeronautical knowledge required to pass the FAA Commercial Pilot knowledge examination. This course meets the FAA requirements for ground training. Flight Training Device flight time is available by concurrent enrollment in ATC 196 C or ATC 198 C. Pass/No Pass/Letter Grade Option. (CSU)

**ATC 244 C Aviation Instructor****3 Units**

**Prerequisite(s):** ATC 240 C.

Term Hours: 18 lecture and 98 laboratory. This course is a study of principles of learning and teaching, elements of practical educational psychology, and a review of current trends and techniques in aviation instruction. Class participation in lesson preparation is included. This course meets fulfillment of the requirements of the FAA for ground instruction in preparation for the FAA Fundamentals of Instruction, Ground Instructor and Flight Instructor knowledge exams, recency and other measures of readiness. (CSU)

**ATC 250 C Turbine Simulator Observation****0.5 Units**

**Corequisite(s):** Must be enrolled in any other ATC course.

Term hours: 0.5 Students will be introduced to a full-motion turbine aircraft flight deck, including familiarization with the fundamentals of flight, flight deck controls, instrument interpretation, and aircraft systems. A required 3-hour preparatory class will be held on campus, and the remaining 6 hours will be delivered at FlightSafety International with a tour of the professional aviation pilot training facility. Students will need to supply a picture ID and an approved background check before entrance to FlightSafety International. Fee may be required, subject to change by facility. Course required to be taken concurrently. Assures student will have the skills/knowledge presupposed in the course needed to receive a satisfactory grade of C or better). (CSU)

**ATC 255 C Turbine Simulator Orientation****0.5 Units**

**Advisory:** Completion of, or concurrent enrollment in, ATC 250 C.

Term Hours: 9 lecture. In this course, students will practice the fundamentals of flight, utilizing the flight deck's controls, instruments, and basic systems in a full-motion turbine flight simulator. A required 3-hour preparatory class will be held on campus, and the remaining 6 hours will be delivered at FlightSafety International with a tour of the professional aviation pilot training facility. Students will need to supply a picture ID and an approved background check before entrance to FlightSafety International. Fee may be required, subject to change by facility. (CSU)

**ATC 256 C Crew Resource Management****3 Units**

Term hours: 54 lecture. This course will examine the concepts of Crew Resource Management (CRM) and Human Factors and Aeronautical Decision Making currently practiced in commercial and corporate aviation. The role of crew supervision and training, leadership styles and management oversight will be studied. Single and multi-crew aircraft situations will be studied. Human factors research and aircraft accident investigations will be examined. (CSU)

**ATC 260 C UAS Drone Advanced (formerly UAV-UAS Advanced)****3 Units**

**Advisory:** Recommend completion of or concurrent enrollment in ATC 160 C, ATC 161 C and ATC 162 C or the equivalent.

Term hours: 54 lecture. This course examines the core technologies of unmanned aircraft systems (UAS), including the design concepts, power plants, control systems, and communication technologies. Explores cross-country navigation, flight planning, payload, sensors, and autonomous operations. Emphasizes the ethical, legal, and safety related requirements of operation in the public, civil, commercial and military settings. (CSU)

**ATC 261 C UAS Drone Advanced Simulator****2 Units**

**Advisory:** Concurrent enrollment in or completion of ATC 260 C.

Term hours: 27 lecture and 27 laboratory. This advanced UAS simulator course provides hands-on flight simulation activities to improve, practice, and optimize essential Unmanned Aircraft Systems pilot flight skills. Flight time in the approved ground trainers may be applied toward requirements for both attaining and maintaining flight ratings. (CSU)

**ATC 262 C UAS Drone Advanced Flight****2 Units**

**Advisory:** Concurrent enrollment or completion of ATC 260 C and ATC 261 C.

Term hours: 27 lecture and 27 laboratory. This course offers advanced UAS drone flight activities to practice and optimize essential Unmanned Aircraft Systems skills. Flight time in the approved UAS drone aircraft may be applied toward requirements for both attaining and maintaining flight ratings. (CSU)

**ATC 270 C Airline Operations****3 Units**

Term hours: 54 lecture. This course is designed for students interested in working in the airline industry. Students will learn airline terminology, city codes, the 24-hour clock, airline operations, and industry hiring standards. (CSU)

**ATC 271 C Airport Operations****3 Units**

Term hours: 54 lecture. This course provides students with a background in general aviation and commercial airports. Students will learn about airport operations, including terminology, ground and baggage handling, terminal and airfield operations, hazardous material, aircraft emergencies, ground access, and FAR Part 139. (CSU)

**ATC 274 C Passenger Services and Safety****3 Units**

Term hours: 54 lecture. In this course, students will learn about passenger related service and safety procedures for the airline industry, including first aid, CPR, fire-fighting, and conflict resolution. (CSU)

**ATC 278 C Public Relations****3 Units**

Term hours: 54 lecture. This course introduces students to the public relations concepts and practices in the airline and travel industries. Students will examine promotional campaigns and develop their own public relations proposal with emphasis on practical applications. (CSU)

**ATC 295 C Aviation and Travel Internship 3 Units**

**Prerequisite(s):** Completion of the Basic Airline Customer Services Certificate; or Basic Flight Attendant Certificate; or Basic Travel/Tourism Certificate

Term hours: 18 lecture and 270 laboratory. This course offers practical work experience in an approved aviation and travel related industry for the student(s) in the Aviation and Travel Careers program. This course is designed to provide vocational learning opportunities through employment. (CSU)

**ATC 296 C Flight Simulator Private Pilot - Advanced 2 Units**

**Advisory:** Completion of or concurrent enrollment in ATC 132 C, or completion of FAA Private Pilot Certificate, or taking flight lessons at a local flight school.

Term hours: 27 lecture and 27 laboratory. In this course, students will participate in hands-on flight simulation activities to develop, practice, and optimize essential private pilot flight skills. Flight time in the approved ground trainers may be applied toward requirements for both attaining and maintaining flight ratings. (CSU)

**ATC 297 C Flight Simulator Instrument Pilot - Advanced 2 Units**

**Advisory:** Completion of or concurrent enrollment in ATC 132 C, or completion of FAA Private Pilot Certificate, or taking flight lessons at a local flight school.

Term hours: 27 lecture and 27 laboratory. In this course, students will participate in hands-on flight simulation activities to develop, practice, and optimize essential instrument related flight skills. Flight time in the approved Flight Training Devices may be applied toward requirements for both attaining and maintaining flight ratings. Pass/No Pass or Letter Grade option. (CSU)

**ATC 299 C Independent Study 0.5-2 Units**

**Prerequisite(s):** Approved Independent Study Learning Contract

Term hours: 8-36 lecture. This course is designed for those students who wish to increase their knowledge of the airline and/or travel industry through professionally directed independent study or research. (CSU)

At Cypress College, there are Department Program Student Learning Outcomes and Degree & Certificate Program Student Learning Outcomes.

## **Department Program Student Learning**

### **Outcomes:**

The courses taught by this department contribute to the following ISLO/PSLOs: A-Breadth of Knowledge, Competencies, and Skills, B-Communication Skills, C-Critical Thinking, Problem Solving, and Information Competency Skills, and D-Personal, Academic, and Professional Development; specifically, the following ISLO/PSLO subcategories: A1-Career Technical Education, B1-Reading, B2-Writing, B3-Communicating, B4-Presenting, C1-Analysis, C2-Computation, C3-Research, C4-Problem Solving, C5-Technology, D1-Personal Responsibility, and D2-Global Citizenship.

## **Degree & Certificate Program Student Learning**

### **Outcomes:**

The program student learning outcomes for each award can be found on the specific degree or certificate page.