

AIRFRAME AND POWERPLANT, ASSOCIATE IN SCIENCE DEGREE

Financial Aid Eligible

Banner Code: 1_AS_AMAP

Control Number: 03977

This program provides students with the technical skills and systems analysis necessary for entry-level positions as Airframe and Powerplant Certificated Mechanics in the aviation industry, such as airframe inspection, powerplant inspection, maintenance, and return-to-flight status of all types of U.S. Certificated aircraft.

Trained technicians are also successful in related fields of aircraft manufacturing, electronics, hydraulics, pneumatics, welding, sheet metal, quality control, civil and military defense. Additionally, students who have followed this program may earn an engineering degree at any one of several four-year institutions.

Complete the Airframe and Powerplant Certificate of Achievement and the Associate in Science graduation requirements as outlined in the Graduation Requirements section of the catalog. Note: this AS degree requires 81 units for completion.

Program Outcomes

1. Have the necessary skills and training for proficiency in taking written, oral and practical exams for Airframe & Powerplant certification which may be required for employment.
2. Be able to improve or develop additional proficiencies required for professional growth or advancement in their current employment. All qualification training and tests are prescribed and follow the guide of the Federal Aviation.

Associate in Science Degree Requirements

1. **UNIT REQUIREMENT** - 60 UNITS, with at least a 2.0 grade point average. At least 12 of the units must be earned at OCC, with a minimum of one course taken for a letter grade. At least 3 units in an advanced course from the program must be completed at OCC. A student must be enrolled at the time of application for graduation. Units earned at an accredited college or university on a credit/no credit basis will be counted toward the degree requirements of the college, to a maximum of 15 units.
2. **MAJOR REQUIREMENT** - Complete the AA or AS major requirements as detailed in the Degree and Certificate section of this catalog.
3. **MATHEMATICS REQUIREMENT** - Demonstrate competence in mathematics by either obtaining a satisfactory grade (grade of "C" or better or "pass") in a mathematics course at or above the level of Intermediate Algebra as demonstrated by prior coursework, or by demonstrating competency that is comparable through the completion of a college-level math course that has Intermediate Algebra as a prerequisite: Psychology A160 or Math A100 or higher, with the exception of Math A220.
4. **GENERAL EDUCATION REQUIREMENT** - Students may choose to complete Option 1 (OCC AA GE) ([https://catalog.cccd.edu/orange-coast/general-education-patterns/associate-arts-general-education-](https://catalog.cccd.edu/orange-coast/general-education-patterns/associate-arts-general-education-option-1/)

<https://catalog.cccd.edu/orange-coast/pathways/industrial-technology/aviation-maintenance-technology/airframe-powerplant-associate-science-degree/orange-coast/general-education-patterns/associate-science-general-education-option-1/>), Option 1 (OCC AS GE) (<https://catalog.cccd.edu/orange-coast/pathways/industrial-technology/aviation-maintenance-technology/airframe-powerplant-associate-science-degree/orange-coast/general-education-patterns/associate-science-general-education-option-1/>), Option 2 (CSU GE) (<https://catalog.cccd.edu/orange-coast/general-education-patterns/associate-degree-general-education-option-2/>), or Option 3 (IGETC (<https://catalog.cccd.edu/orange-coast/general-education-patterns/associate-degree-general-education-option-3/>)) to satisfy the general education requirement. See the General Education Patterns section of this catalog for more information.

Course	Title	Units
Year 1		
Fall		
AMT A150	General Maintenance Records - FAA	4
AMT A151	General Electricity - FAA	3
AMT A152	General Airframe & Powerplant Fuel Systems - FAA	2
AMT A153	General Materials, Processes & Welding - FAA	3
AMT A154	General Weight & Balance, Math & Physics - FAA	3
Units		15
Spring		
AMT A160	Airframe & Powerplant Electricity - FAA	6
AMT A180	Airframe and Powerplant Instrumentation FAA	2.5
AMT A161	Airframe Sheet Metal & Composite Structural Repair - FAA	5.5
AMT A162	Airframe Assembly & Rigging, Pneumatics & Environmental Control Systems - FAA	3
AMT A181	Airframe Communication and Navigation Systems - FAA	2
AMT A155	General Blueprint Reading & Drafting - FAA	2
Units		21
Summer		
AMT A163	Airframe Hydraulics and Landing Gear - FAA	4.5
Units		4.5
Year 2		
Fall		
AMT A170	Powerplant Reciprocating Engines FAA	6
AMT A171	Powerplant Fuel Metering, Exhaust & Induction Systems FAA	4
Units		10
Spring		
AMT A174	Powerplant Ignition Systems - FAA	2.5
AMT A172	Powerplant Propeller and Lubricating Systems FAA	4
AMT A173	Powerplant Gas Turbine Engines - FAA	6
Units		12.5
Total Units		63

Program approved by the Federal Aviation Administration (FAA).

Completion of the above enables the student to take the FAA Airframe & Powerplant written examinations.

Requirement	Units
Program Major Units	63
AS General Education Option 1, 2, or 3	Varies
Total Minimum Degree Units	81