

AIRFRAME & POWERPLANT, ASSOCIATE IN SCIENCE DEGREE

Banner Code: 1_AS_AMAP

Control Number: 03977

Financial Aid Eligible

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.

Review Graduation Requirements (<https://catalog.cccd.edu/orange-coast/graduation-requirements/associate-degree/>) and General Education (<https://catalog.cccd.edu/orange-coast/general-education-patterns/>).

Course	Title	Units
Required Courses		
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
AMT A155	General Blueprint Reading & Drafting - FAA	2
AMT A160	Airframe & Powerplant Electricity - FAA	6
AMT A161	Airframe Sheet Metal & Composite Structural Repair - FAA	5.5
AMT A162	Airframe Assembly & Rigging, Pneumatics & Environmental Control Systems - FAA	3
AMT A163	Airframe Hydraulics and Landing Gear - FAA	4.5

Course	Title	Units
AMT A170	Powerplant Reciprocating Engines FAA	6
AMT A171	Powerplant Fuel Metering, Exhaust & Induction Systems FAA	4
AMT A172	Powerplant Propeller and Lubricating Systems FAA	4
AMT A173	Powerplant Gas Turbine Engines - FAA	6
AMT A174	Powerplant Ignition Systems - FAA	2.5
AMT A180	Airframe and Powerplant Instrumentation FAA	2.5
AMT A181	Airframe Communication and Navigation Systems - FAA	2
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

Program Sequence

These sequences at Orange Coast College are general course curriculum maps for students to finish all major and general education requirements for two-year completion of degrees, and/or fulfillment of transfer requirements. The course sequence may include course prerequisites and other placement requirements. **Students are advised to meet with an Orange Coast College Counselor to review course selections and sequences to ensure that completion of this program will meet a student's transfer and career goals.**

Some courses in this program may be offered once per academic year.

Course	Title	Units
Year 1		
Semester 1		
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
Semester 2		
AMT A160	Airframe & Powerplant Electricity - FAA	6
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
	Units	16.5

Course	Title	Units
Intersession		
AMT A180	Airframe and Powerplant Instrumentation FAA	2.5
AMT A155	General Blueprint Reading & Drafting - FAA	2
Units		4.5
Summer		
AMT A163	Airframe Hydraulics and Landing Gear - FAA	4.5
OCC AS GE AREA A1 - CHOOSE ONE		3
Units		7.5
Year 2		
Semester 1		
AMT A174	Powerplant Ignition Systems - FAA	2.5
AMT A170	Powerplant Reciprocating Engines FAA	6
AMT A171	Powerplant Fuel Metering, Exhaust & Induction Systems FAA	4
Select one of the following or satisfy Math competency (completion of High School Algebra 2 with a "C" or better):		0-4
MATH A030 or MATH A045	Intermediate Algebra (or higher) ¹ or Combined Elementary and Intermediate Algebra	
Units		12.5-16.5
Semester 2		
AMT A172	Powerplant Propeller and Lubricating Systems FAA	4
AMT A173	Powerplant Gas Turbine Engines - FAA	6
OCC AS GE AREA A2 - CHOOSE ONE ²		3-4
OCC AS GE AREA B - CHOOSE ONE		3-4
OCC AS GE AREA C1 - CHOOSE ONE		3
Units		19-21
Summer		
OCC AS GE AREA C2 - CHOOSE ONE		3
OCC AS GE AREA D - CHOOSE ONE		3
Units		6
Total Units		81-87

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Math A030 or higher; *100-level Math courses satisfy AS Math Requirement and OCC AS GE AREA A2

2

OCC AS GE AREA A2 - Required if 100-level MATH will not be taken to meet Math competency.