

AVIATION MAINTENANCE TECHNOLOGY

Looking for a challenging career which provides a hefty income, great benefits and the opportunity to travel? Aviation Maintenance Technology (AMT) may be just what you need. This program is to prepare students for employment or advanced training in the commercial and general aviation industry. Instruction is designed to prepare students for Federal Aviation Administration (FAA) certification examinations for Airframe and Powerplant rating. Federal Aviation Regulation (FAR) Part 147 identifies minimum requirements for AMT schools. The program prepares students for employment as an Aviation General Maintenance Technician Helper (Industry Title), an Aviation Maintenance Technician with FAA Airframe and/or Powerplant Rating (Industry Title).

This program focuses on broad, transferable skills, stresses understanding of all aspects of the aviation maintenance industry, and demonstrates elements of the industry such as planning, management, finance, technical and production skills, underlying principles of technology, labor issues, community issues, and health, safety, and environmental issues.

Laboratory Activities

Classroom, shop, and laboratory activities are an integral part of this program.

These activities include instruction in the use of safety procedures, tools, equipment, materials, and processes found in the industry. Equipment and supplies will be provided to enhance hands-on experiences for students in the chosen occupation.

PROGRAM OUTCOMES

AIRCRAFT AIRFRAME AND POWERPLANT MECHANIC

After successfully completing the appropriate content for each occupational completion point of this program, the student will be able to perform the following:

OCCUPATIONAL COMPLETION POINT – A

AVIATION GENERAL MAINTENANCE TECHNICIAN HELPER-Industry Title

- Perform basic electricity skills.
- Perform basic aircraft drawing skills.
- Demonstrate aircraft weight and balance skills.
- Maintain aircraft fluid lines and fittings.
- Perform aircraft materials and processes skills.
- Perform ground operations and servicing duties.
- Perform cleaning and corrosion-control operations.
- Demonstrate mathematical skills.
- Maintain forms and records.
- Apply basic physics to aircraft systems.
- Demonstrate appropriate understanding of basic science.
- Demonstrate the use of maintenance publications.
- Interpret mechanic privileges and limitations.
- Identify FAA licensing requirements.
- Demonstrate appropriate communication skills.
- Demonstrate employability skills as an aviation general maintenance technician helper.
- Demonstrate an understanding of entrepreneurship related to opportunities in aviation general maintenance occupations.

OCCUPATIONAL COMPLETION POINT – B

AVIATION MAINTENANCE TECHNICIAN WITH FAA AIRFRAME RATING-Industry Title

- Maintain wood structures.
- Perform aircraft covering.
- Apply aircraft finishes.
- Repair sheet-metal structures.
- Perform welding.
- Perform assembly and rigging.
- Perform airframe inspection.
- Maintain aircraft landing-gear systems.
- Maintain hydraulic and pneumatic power systems.
- Maintain cabin atmosphere control systems.
- Maintain aircraft instruments systems.
- Maintain communication and navigation systems.
- Inspect and repair aircraft fuel systems.
- Inspect and repair aircraft electrical systems.
- Inspect and repair position and warning systems.
- Maintain ice and rain control systems.
- Inspect and repair aircraft fire-protection system.
- Demonstrate knowledge of FAA Airframe licensing requirements.
- Demonstrate employability skills as an aviation maintenance technician with an FAA airframe rating.
- Demonstrate an understanding of entrepreneurship related to opportunities in aviation airframe maintenance occupations.



OCCUPATIONAL COMPLETION POINT – C

AVIATION MAINTENANCE TECHNICIAN WITH FAA POWERPLANT RATING-Industry Title

- Perform basic reciprocating engine skills.
- Perform basic turbine engine skills.
- Perform engine inspection.
- Maintain engine instrument systems.
- Maintain engine fire-protection systems.
- Maintain engine electrical systems.
- Maintain lubrication systems.
- Maintain ignition systems.
- Maintain fuel-metering systems.
- Maintain engine fuel systems.
- Maintain induction systems.
- Maintain engine cooling systems.
- Maintain engine exhaust and reverser systems.
- Maintain aircraft propellers.
- Demonstrate knowledge of FAA Powerplant licensing requirements.
- Demonstrate employability skills for an aviation maintenance technician with an FAA powerplant rating.
- Demonstrate an understanding of entrepreneurship opportunities in aviation powerplant maintenance occupations.

AVIATION MAINTENANCE TECHNICIAN WITH FAA AIRFRAME AND POWERPLANT RATING-Industry title

- Obtain FAA airframe and powerplant certificate.

REGISTRATION REQUIREMENTS

Students must take the Tests of Adult Basic Education (TABE) prior to entering the program. Minimum entrance requirements for this program include a high school diploma or GED.

COMPLETION TIME

Length of program: 2400 hours

CAREER OPPORTUNITIES

The programs in this cluster prepare students for employment as an Aviation General Maintenance Technician Helper (Industry Title), an Aviation Maintenance Technician with FAA Airframe Rating (Industry title), and an Aviation Maintenance Technician with FAA Powerplant Rating (Industry title).

CERTIFICATES

Upon successful completion of the program, the graduate will receive a Certificate of Completion. To become an Aviation Maintenance Technician with Airframe and Powerplant ratings, a student must complete both Airframe and Powerplant levels of instruction and pass the FAA examinations. Required FAA examinations, include GENERAL written, oral, and practical; AIRFRAME written, oral, and practical; and POWERPLANT written, oral and practical.

Transfer Information

Vocational credit will be converted to college credit upon transfer to the AS degree at the community college.

This program is part of Aviation Maintenance Management AS degree and guarantees transfer credit of 60 hours toward the AS degree when the student has obtained his or her FAA Airframe and Powerplant certificate

SALARY RANGE

\$11.80/hr. - \$19.41/hr.

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