



Aviation Maintenance

The Aviation Maintenance program of study focuses on occupational and educational opportunities associated with maintenance and repair of airframe structures, systems, and components of an aircraft. This program of study includes exploration of aircraft maintenance procedures, air navigational aids, air traffic controls, and communication equipment to ensure compliance with federal safety regulations.



Courses for High School Credit

- Level 1** • Introduction to Aircraft Technology
- Level 2** • Aircraft Maintenance Technology
- Level 3** • Aircraft Airframe Technology
- Level 4** • Practicum in Aviation Maintenance

Aligned Industry-Based Certifications

- Aerospace Manufacturing Certification

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none"> • Shadow an aviation maintenance technician at an airport to learn about aircraft inspection and maintenance • Participate in an aircraft maintenance apprenticeship at an airline or a defense technology company
Expanded Learning Opportunities	<ul style="list-style-type: none"> • Participate in TechForce • Participate in SkillsUSA • Explore associations such as Aircraft Mechanics Association and Women in Aviation



Example Postsecondary Opportunities

Apprenticeships

- Aircraft Mechanic Apprentice



Associate Degrees

- Avionics Maintenance Technology
- Aeronautics/Aviation/Aerospace Science and Technology

Bachelor's Degrees

- Aircraft Powerplant Technology
- Airframe Mechanics and Aircraft Maintenance Technology

Master's, Doctoral, and Professional Degrees

- Aerospace, Aeronautical, and Astronautical/Space Engineering
- Industrial Technology

Additional Stackable IBCs/License

- Certificated Aviation Maintenance Technician

Example Aligned Occupations

(Based on statewide employment data)



Aerospace Engineering and Operations Technicians

Median Wage: \$48,204
Annual Openings: 192
10-Year Growth: 21%

Aircraft Mechanics and Service Technicians

Median Wage: \$67,683
Annual Openings: 1,636
10-Year Growth: 16%

Avionics Technicians

Median Wage: \$72,461
Annual Openings: 255
10-Year Growth: 16%



For more information visit:
<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>



Successful completion of the Aviation Maintenance program of study will fulfill requirements of the Business and Industry endorsement.



Aviation Maintenance Course Descriptions:

Introduction to Aircraft Technology- AVI2000 (1 Credit)

Level: 1

Course Fee: None

Prerequisites: None

GPA Weight: Regular

Introduction to Aircraft Technology is designed to teach the theory of operation of aircraft airframes, power plants, and associated maintenance and repair practices. Maintenance and repair practices include knowledge of the function, diagnosis, and service, airframe structures, airframe systems and components, power plant theory and maintenance, and powerplant systems and components of aircraft. Industry recognized professional licensures, certifications, and registrations are available for students who meet the requirements set forth by the accrediting organization.



Aircraft Maintenance Technology- AVI2200 (1 credit)

Level: 2

Course Fee: None

Prerequisite: Intro. to Aircraft Technology

GPA Weight: Regular

Students will practice safe working habits and learn the components of a reciprocating engine; aircraft control systems, and avionics systems. The course will include aircraft service requirements, ground operation procedures, and calculating the cost associated with aircraft preventative maintenance.

Aircraft Airframe Technology - AVI3200 (2 credits)

Level: 3

Course Fee: None

Prerequisite: Intro. to Aircraft Technology

GPA Weight: Regular

Aircraft Airframe Technology is designed to teach the theory of operation of aircraft airframes and associated maintenance and repair practices. Airframe maintenance and repair practices include knowledge of the function, diagnosis, and service of airframe structures, systems, and components of aircraft.

Course taught exclusively at the Tomball Innovation Center.



Practicum in Aviation Maintenance- AVI4000 (2 credits)

Level: 4

Course Fee: None

Prerequisites: 2 credits in the Program of Study

GPA Weight: Regular

Practicum in Aviation Maintenance is designed to give students supervised practical application of knowledge and skills. Practicum experiences can occur in a variety of locations appropriate to the nature and level of experience such as internships, mentorships, independent study, or laboratories. The Practicum can be either school lab-based or work-based.

Course taught exclusively at the Tomball Innovation Center.



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