

Transportation, Distribution, and Logistics Career Cluster

The Transportation, Distribution, and Logistics Career Cluster focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Aviation Maintenance Statewide Program of Study



The Aviation Maintenance program of study introduces students to the occupations and education opportunities related to inspecting aircraft, maintenance procedures, air navigational aids, air traffic controls, and communications equipment to ensure conformance with federal safety regulations.

Secondary Courses for High School Credit

Level 1

- Introduction to Aircraft Technology

Level 3

- Aircraft Airframe Technology

Level 4

- Extended Practicum in Transportation Systems Dual Credit

Postsecondary Opportunities

Level I Certificate from SWTJC upon successful completion of program of study

Associates Degrees

- Avionics Maintenance Technology/ Technician
- Aircraft Powerplant Technology/ Technician
- Airframe Mechanics and Aircraft Maintenance Technology/ Technician

Bachelor's Degrees

- Airframe Mechanics and Aircraft Maintenance Technology/ Technician

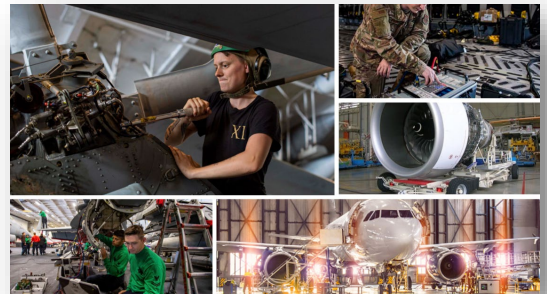
Work-Based Learning and Expanded Learning Opportunities

Exploration Activities

- Participate in SkillsUSA

Work-Based Learning Activities

- Job shadowing activities at Laughlin Air Force Base



Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Aircraft Mechanics and Technicians	\$58,698	1,469	9%
Avionics Technicians	\$59,114	170	9%

Successful completion of the Aviation Maintenance program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

COURSE INFORMATION

COURSE NAME	COURSE NUMBER AND CREDITS	PREREQUISITES (PREQ) COREQUISITES (CREQ)	GRADE
Introduction to Aircraft Technology	8727 (1 credit)	admission criteria in the student handbook	10
Aircraft Airframe Technology Dual Credit	8724-6 & 8724DC (2 credits)	Intro to Aircraft & SWTJC requirements	11
Practicum in Transportation Systems Dual Credit	8729-6 & 8729DC (3 credits)	Aircraft Airframe Technology Dual Credit	12

COURSE DESCRIPTIONS

Introduction to Aircraft Technology:

This course is designed to teach the theory of operation of aircraft airframes, power plants, and avionics systems and associated maintenance and repair practices. Aircraft services include knowledge of the function, diagnosis, and service of the electrical, electronic, hydraulic, pneumatic, airframe, mechanical, and power plant components of aircraft. Safety regulations will be explored through OSHA.

Aircraft Airframe Technology Dual Credit:

College Credits: AERM 1203, 1210, & 1315

This course is designed to teach basic theory of operation of aircraft, its power plants (engines), airframe (structure), and avionic system (instrumentation) along with associated maintenance and repair practices to keep these systems working. Student will understand the theory of how they all work to keep aircraft flying.

Practicum in Transportation Systems Dual Credit:

College Credits: AERM 1314, 1350, & 2231

Laughlin Air Force Base becomes the classroom for this course, providing hands-on training on T-1, T-6, and T-38 aircraft. Students learn about removing, replacing, and installing components of different systems that make an aircraft fly. They are trained on servicing fuel and oil in the engines and hydraulic systems of the aircraft and learn the proper use of manuals and publications to maintain aircraft.

Courses in yellow are advanced courses for endorsement purposes.

