

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, and mobile equipment and facility maintenance. This career cluster includes a diverse spectrum of occupations, ranging from automotive mechanic, avionics technician, automotive entrepreneur, pilots to logistics planning professionals.

Statewide Program of Study: 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.

Secondary Courses for High School Credit

- Level 1**
 - Principles of Transportation Systems
 - Introduction to Aircraft Technology

- Level 2**
 - Occupational Safety and Environmental Technology I
 - Aircraft Maintenance Technology (TBD)

- Level 3**
 - Aircraft Airframe Technology
 - Aircraft Airframe Technology + Advanced Transportation Systems Laboratory
 - Aircraft Avionics Technology (TBD)

- Level 4**
 - Aircraft Powerplant Technology
 - Aircraft Powerplant Technology + Advanced Transportation Systems Laboratory
 - Nondestructive Testing/Nondestructive Inspection Technology (TBD)
 - Practicum in Transportation Systems
 - Practicum in Transportation Systems + Extended Practicum in Transportation Systems
 - Career Preparation for Programs of Study
 - Career Preparation for Programs of Study + Extended Career Preparation

Aligned Advanced Academic Courses

AP or IB	AP Physics C: Mechanics
Dual Credit	Dual credit offerings will vary by local education agency.

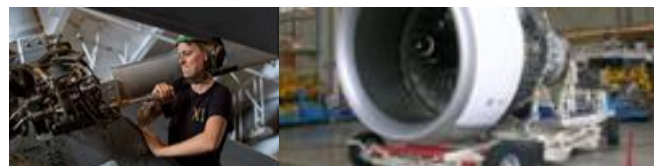
Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

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

Aligned Industry-Based Certifications

- Aerospace Manufacturing Certification
- Industrial Technology Maintenance (ITM) – Maintenance Operations
- Industrial Technology Maintenance (ITM) – Electrical Systems
- Industrial Technology Maintenance (ITM) - Basic Mechanical Systems
- Industrial Technology Maintenance (ITM) – Basic Pneumatic Systems



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

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%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.












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

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Statewide Program of Study: Aviation Maintenance

Course Information

	Course	Prerequisites Corequisites	Career Clusters
Level 1	Principles of Transportation Systems* 13039250 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Introduction to Aircraft Technology* 13039350 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Level 2	Occupational Safety and Environmental Technology I* N1303680 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Transportation Systems, Principles of Distribution and Logistics, or Principles of Manufacturing Recommended Corequisites: None	  
	Aircraft Maintenance Technology TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: TBD	
Level 3	Aircraft Airframe Technology 13039400 (2 credits)	Prerequisites: Introduction to Aircraft Technology Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Aircraft Airframe Technology + Advanced Transportation Systems Laboratory 13039410 (3 credits)	Prerequisites: Introduction to Aircraft Technology Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Aircraft Avionics Technology TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: TBD	

* Indicates course is included in more than one program of study.








For additional information on the **Transportation, Distribution, and Logistics** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

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Statewide Program of Study: Aviation Maintenance

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Aircraft Powerplant Technology 13039500 (2 credits)	Prerequisites: Introduction to Aircraft Technology Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Aircraft Powerplant Technology + Advanced Transportation Systems Laboratory 13039510 (3 credits)	Prerequisites: Introduction to Aircraft Technology Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Nondestructive Testing/Nondestructive Inspection Technology TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: TBD	
Practicum in Transportation Systems* First Time Taken: 13040450 (2 credits) Second Time Taken: 13040460 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Transportation Systems + Extended Practicum in Transportation Systems* First Time Taken: 13040455 (3 credits) Second Time Taken: 13040465 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: : At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

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