

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 Pilots Statewide Program of Study



The Aviation Pilots statewide program of study introduces CTE learners to the occupations and education opportunities related to understanding the principles and science of flight, aviation engineering, 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 Aerospace and Aviation (1)

Level 2

- Introduction to Unmanned Aerial Vehicle Flight (1)

Level 3 and 4 classes for this program of study are taught exclusively at the Tomball Innovation Center.

Level 3

- Aviation Ground School (1)
- Aviation Scientific Research and Design* (1)

Level 4

- Practicum in Aviation Pilots* (2)

*Required Prerequisite +Recommended Prerequisite

Specific course offerings and availability are subject to change due to interest and enrollment.

Industry-Based Certifications

- FAA Part 107 Remote Drone Pilot



Introduction to Aerospace and Aviation (1)

The Introduction to Aerospace and Aviation course will provide the foundation for advanced exploration in the areas of professional pilot, aerospace engineering, and unmanned aircraft systems. Students will learn about the history of aviation, from Leonardo da Vinci's ideas about flight to the Wright brothers and the space race. Along the way students will learn about the innovations and technological developments that have made today's aviation and aerospace industries possible. The course includes engineering practices, the design process, aircraft structure, space vehicles past and present, and a look toward future space exploration.

Introduction to Unmanned Aerial Vehicle Flight (1)

The Introduction to Unmanned Aerial Vehicle (UAV) Flight course is designed to prepare students for entry-level employment or continuing education in piloting UAV operations. Principles of UAV is designed to instruct students in UAV flight navigation, industry laws and regulations, and safety regulations. Students are also exposed to mission planning procedures, environmental factors, and human factors involved in the UAV industry.

Aviation Ground School (1)

This course is designed to extend student interests in all aspects of aviation while preparing students to take the formal ground requisite exam for the Federal Aviation Administration (FAA) FAA Airman Knowledge Test which is required to obtain a private pilot's license. The rigor of the course challenges students with complex aeronautical, engineering, weather, management and judgement concepts. Rules, regulations, obligations, and commitments to discipline and focus are foundational throughout the course. The ability to grasp flight without actually flying a real aircraft extends well beyond the classroom as students learn navigation, weather science, attention to detail (mathematical fuel and load planning), health and mental well-being related to flight planning and piloting aircraft.

Aviation Scientific Research and Design* (1)

The course has the components of any rigorous scientific or engineering program of study with a focus on aviation including the identification of a problem, investigation design, data collection, data analysis, formulation, and presentation of the conclusions. All of these components are integrated with the career and technical education emphasis of helping students gain entry-level employment in high-skill, high-wage jobs and/or continue their education.

Practicum in Aviation Pilots* (2)

Practicum in Aviation 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 worked based.

Occupations	Median Wage	Annual Openings	% Growth
Aerospace Engineering and Operations Technicians	\$60,757	114	9%
Airline Pilots, Copilots, and Flight Engineers	\$165,130	1,150	9%
Commercial Pilots	\$86,310	548	9%