Engineering Career Cluster

The Engineering career cluster focuses on planning, designing, testing, building, and maintaining of machines, structures, materials, systems, and processes using empirical evidence and science, technology, and math principles. This career cluster includes occupations ranging from mechanical engineer and drafter to electrical engineer and to mapping technician.

Regional Program of Study: Drone (Unmanned Vehicle)

The Drone (Unmanned Vehicle) regional program of study focuses on the occupational and educational opportunities associated with operating or designing an unmanned aircraft using a ground-based controller. This program of study includes understanding and designing systems of communications between the controller and the aircraft to ensure compliance with federal aviation safety regulations.

Secondary Courses for High School Credit

Level 1	• Introduction to Aerospace and Aviation **(N1304672)**
Level 2	• Robotics I **(13037000)**
Level 3	• Robotics II **(13037050)**
Level 4	• Scientific Research and Design **(13037200)**

Example Postsecondary Opportunities

Associate Degrees
- Airline/Commercial/Professional Pilot and Flight Crew
- Manufacturing Engineering Technology/Technician

Bachelor's Degrees
- Aviation Science
- Aeronautical/Aerospace Engineering Technology

Master's, Doctoral, and Professional Degrees
- Aerospace, Aeronautical, and Astronautical/Space Engineering, General

Additional Stackable IBCs/License
- Aerial Mapping and 3D Modeling Certification

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a public service, engineering, construction, or transportation firm • Practice drone operations with an industry professional at a work site
Expanded Learning Opportunities	• Participate in TSA

Aligned Industry-Based Certifications

- **FAA Part 107 Remote Drone Pilot – This is obtained in Introduction to Aviation**

Example Aligned Occupations

Aerospace Engineering and Operations Technicians
Median Wage: $75,660
Annual Openings: 85
10-Year Growth: 21%

Avionics Technicians
Median Wage: $78,639
Annual Openings: 128
10-Year Growth: 16%