

Aviation Electronics Technician Certificate

Degree Type Certificate

Advanced aircraft systems (AAS), commonly referred to as avionics, are the technologies fitted to an aircraft like communications, navigation, weather, radar, autopilot, sensors, Wi-Fi, entertainment systems, as well as other advanced technologies like autonomous flight controls and emergency response systems. An avionics technician works directly with these electronics and is responsible for maintaining, troubleshooting, and repairing avionics equipment.

On the job, an avionics technician is typically responsible for the following basic tasks:

- Testing electronic instruments using circuit testers, oscilloscopes, and voltmeters
- Interpreting flight test data to diagnose performance issues
- Assembling components, such as electrical controls and junction boxes
- Installing instrument panels using hand tools, power tools, and soldering irons
- Repairing or replacing malfunctioning parts and systems
- Keeping detailed records of maintenance and repair work

The work of an avionics technician is vast and more specific, specialized responsibilities can differ from position to position. The tools used in avionics can also range from standard power tools to specialized electronics equipment.

Requirements

Courses

Item #	Title	Credits
AET101	Aviation Electronics Technician (AET): Module 1	10
AET102	Aviation Electronics Technician (AET): Module 2	10
Total Credits		20

Career Outlook

Most aviation companies have avionics repair services within their operations. Below are just a few examples of leading companies and businesses with avionics teams!

- Airborne / PEMCO is a maintenance, repair, and overhaul (MRO) company that services commuter airliners like Frontier, Spirit, Southwest, and cargo aircraft for companies like Amazon and UPS.
- Delta Tech Ops is another MRO and a division of Delta Air Lines. They are full-service maintenance providers, including avionics systems services, for the Delta Air Lines fleet and provide services for other third-party companies worldwide.
- General Atomics is a military defense company that manufactures/services unmanned aerial vehicles and other innovative technologies for autonomous flight systems.
- Gulfstream Aerospace designs and manufactures gorgeous luxury corporate business jets! Gulfstream aircraft are used worldwide, notably by 35 governments for personnel transportation, atmospheric research, and surveillance and reconnaissance.
- Northrop Grumman is a global aerospace and defense technology company with multiple divisions, including aerospace, missions, defense, and space systems.

Earning an avionics certification will allow you to work with aircraft technologies, which will be imperative to your growth and career possibilities in aviation maintenance as well as other areas in aviation electronics and new technology paths.

Program Outcomes

4C's AET curriculum incorporates hands-on training with avionics equipment and electronic projects, including:

- flight simulation technologies
- structural blueprint and schematics reading
- DC & AC circuits
- analog & digital circuits
- soldering skills
- electronics CAD drawing
- circuit/project prototyping & fabrication
- microprocessor theory

Additionally, students will learn how to troubleshoot advanced avionics technologies by understanding electrical behavior with electrical theories, practicing specific math formulas, and interpreting data.

Graduates from 4C's AET program will be trained with the fundamental knowledge necessary for aviation maintenance work!