

Aerospace Electronics

Degree Type

Certificate of Completion

Associate of Technical Science Degree

Significant increases in employment are expected in the aerospace industry, as well as a need for more workers with aviation-related skills. WVC is part of the Air Washington consortium and will train electronics workers for manufacturing and servicing of electronic components and equipment.

The industrial technology-aerospace electronics associate of technical science (ATS) degree and one-year aerospace electronics technician certificate provides a broad foundation in electronics training. Instruction emphasizes a hands-on approach, use of sophisticated test equipment, and a solid base of information concerning the hardware and software of control systems for technical applications. These programs offer preparation for multiple nationally recognized industry certifications that may lead to employment and opportunities for future advancements with companies specializing in manufacturing or servicing all types of electronic equipment, including manufacturing and servicing of aerospace electronics.

For more information about graduation rates, the median debt of students who completed the program and other important information, visit www.wvc.edu/aerospaceelectronics.

Suggested Course Sequence:

Associate of Technical Science Degree (requires all first- and second-year courses)

Aerospace Electronics Technician Certificate of Completion (entire first year)

Offered at Wenatchee campus

| | Total Credits | 102 |
|-------------------|---------------|-----|
| Course Sequencing | | |

First Year - Fall Quarter

| Course ID | Title | Credits |
|-----------|---------------------------------------|---------|
| INDT 100 | Introduction to Aerospace Electronics | 3.0 |
| ELEC 125 | Wiring Diagrams and Schematics | 5.0 |
| ELTRO 101 | Basic DC-1 | 5.0 |
| | ENGR 102 or WELD 128 | 2.0-3 |

First Year - Winter Quarter

| Course ID | Title | Credits |
|-----------|---------------------------------|---------|
| BCT 116 | Professional Work Relations | 3.0 |
| ELEC 115 | Applied Electricity | 5.0 |
| ELTRO 121 | Digital Electronics | 5.0 |
| | MATH 100 or MATH& 107 or higher | 5.0 |

First Year - Spring Quarter

| Course ID | Title | Credits |
|-----------|--|---------|
| ELEC 135 | Control Fundamentals | 5.0 |
| ELTRO 132 | Introduction to Computerized Controls and PLCs | 5.0 |
| INDT 250 | Aerospace Electronics Capstone | 2.0 |
| | OCED 102 or ENGL& 101 | 5.0 |
| OCED 130 | Industrial Safety | 5.0 |

Total Credits for Aerospace Electronics Technician Certificate of Completion: 55-56

Second Year - Fall Quarter

| Course ID | Title | Credits |
|-----------|--|---------|
| CTS 110 | Computer Hardware | 5.0 |
| ELTRO 210 | Introduction to Programming TAG Based Software for PLC's | 5.0 |
| ELTRO 223 | Programming Software for Tag-Based PLCs | 5.0 |

Second Year - Winter Quarter

| Course ID | Title | Credits |
|-----------|-------------------------------------|---------|
| ELTRO 220 | Control Devices and Robotics | 5.0 |
| ELTRO 221 | Graphic Interface Programs for PLCs | 5.0 |
| ELEC 225 | Industrial Electricity & Controls | 5.0 |

Spring Quarter

| Course ID | Title | Credits |
|-----------|--|---------|
| INDT 164 | Plant Maintenance | 5.0 |
| ELTRO 231 | Troubleshooting Electronic PLC Control Systems | 5.0 |
| ELTRO 240 | Industrial Hydraulics & Pneumatics | 5.0 |

[MATH 100](#), [OCED 102](#): Placement score required.

Program outcomes

Upon Completion of WVC's Industrial Aerospace Electronics program the successful student should be able to:

- Correctly and safely use a variety of electrical testing equipment.
- Comprehend electrical equipment installation and servicing literature.
- Communicate with other professionals and the general public using terminology appropriate for the aerospace industry.
- Identify specific aerospace-related equipment and service using industry specific (or standardized) service techniques.
- Acquire training and education to seek employment or advance in current employment.
- Understand on the job safety precautions.
- Seek employment using skills and techniques geared toward the aerospace industry jobs.
- Present and intelligently discuss their individual portfolios during job interviews.

ENGR 102 or WELD 128

Elective Credits 2-3

| Course ID | Title | Credits |
|-----------|-----------------------------------|---------|
| ENGR 102 | Interpreting Engineering Graphics | 2.0 |
| WELD 128 | Basic Welding | 3.0 |

MATH 100 or MATH& 107 or higher

Elective Credits 5

| Course ID | Title | Credits |
|-----------|--------------------------------|---------|
| MATH 100 | Tech Math for Industrial Field | 5.0 |
| MATH& 107 | Math In Society | 5.0 |

OCED 102 or ENGL& 101

Elective Credits 5

| Course ID | Title | Credits |
|-----------|--------------------------|---------|
| OCED 102 | Writing In The Workplace | 5.0 |
| ENGL& 101 | Composition: General | 5.0 |