

# Industrial Technology - Electronics

- **Associate of Technical Science Degree**
- **Electronics Technician Certificate of Completion**

The industrial technology - electronics program provides training for maintenance electricians and electronics technicians within industrial facilities such as wood processing plants, agricultural food storage and processing warehouses, manufacturing plants and hydroelectric power facilities. It also provides advanced-level training and skill improvement for plant electricians and other employees seeking to improve their work classification within their company on modern electronic circuits, programmable logic controllers (PLCs) and control systems.

Before entering the industrial technology - electronics program, students are strongly advised to complete one year of high school algebra or its equivalent. Prior to entry into the program, documentation of computer literacy, or BCT 105 or instructor permission is required. A current first aid card with CPR is required upon graduation. Coursework in computers and basic electricity/electronics is also beneficial prior to entering the program. If students are planning additional education beyond the WVC associate of technical science (ATS) degree, work closely with the program adviser as some electronics coursework may be transferable, and students may want to consider taking ENGL& 101 and college-level transfer math as part of the ATS degree.

To be eligible for the degree, students must earn at least a cumulative 2.0 grade point average. Core program courses may have prerequisite requirements. English and mathematics courses require qualifying assessment scores or acceptable preparatory coursework in those subjects. See course descriptions for details. If students complete the industrial technology - electronics ATS degree, they can earn electrical hours toward the Washington State Labor and Industry (07) Nonresidential Maintenance Specialty Electrical License.

For more information about graduation rates, the median debt of students who completed the program and other important information, visit [www.wvc.edu/industrial](http://www.wvc.edu/industrial).

## Suggested Course Sequence:

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

**Electronics Technician Certificate of Completion** (entire first year)

Offered at Wenatchee campus

First Year			Second Year		
Fall Quarter		Credits	Fall Quarter		Credits
ELEC 125	Wiring Diagrams and Schematics.....	5	CTS 110	Computer Hardware.....	5
ELTRO 101	Basic DC-1 .....	5	ELTRO 202	Intro. to the NEC .....	2
BCT 116	Professional Work Relations.....	3	ELTRO 210	Programming Software for PLCs .....	5
ENGR 102	Engineering Graphics and Design .....	4	ELTRO 223	Programming Software for Tag-Based PLCs.....	3
Winter Quarter			Winter Quarter		
OCED 102*	Writing in the Workplace/ Technical English .....	5	WELD 128	Basic Welding .....	3
ENGR 105	Computer Aided Design.....	5	ELTRO 220	Control Devices and Motor Drives.....	3
ELEC 115	Applied Electricity .....	5	ELTRO 221	Graphic Interface Programs for PLCs.....	5
ELTRO 121	Digital Electronics .....	5	ELEC 225	Industrial Electricity and Controls.....	5
Spring Quarter			Spring Quarter		
MATH 100T*	Technical Math or higher .....	5	INDT 164	Plant Maintenance .....	5
OCED 130	Industrial Safety.....	5	ELTRO 230	Programmable Logic Controller Network.....	5
ELTRO 132	Intro. to Computer Controls and PLCs.....	5	ELTRO 231	Troubleshooting Electronic PLC Control Systems.....	5
ELEC 135	Control Fundamentals.....	3	ELTRO 240	Industrial Hydraulics and Pneumatics.....	5
<b>Total Credits for Certificate</b>		<b>55</b>	<b>Total Credits for Degree</b>		<b>106</b>

\*Placement score required.