

# ELECTRONICS: INDUSTRIAL SYSTEMS

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## Certificate of Completion #24319

In addition to courses in electronics fundamentals, the Industrial Systems curriculum encompasses advanced coursework in industrial electronics, including electronic devices for industrial and motor controls. The curriculum culminates in the study of programmable logic controls (PLCs) using the Allen-Bradley series of PLCs running Windows ladder logic software.

### Program Learning Outcomes

- Students will be technically competent.
- Students will be employed or seeking employment in the field or a related field.
- Students will employ polar and/or rectangular notation to determine the magnitude and phase shift of an unknown circuit parameter (voltage, current, impedance, and/or power).

Review [Student Learning Outcomes \(SLOs\)](#) for this program.

### Required Courses

Course Prefix	Course Name	Units
VOC EL11	Technical Applications in Microcomputers	
VOC EL12	Computer Simulation and Troubleshooting	
VOC EL50A	Electronic Circuits - Direct Current (DC)	
VOC EL50B	Electronic Circuits (AC)	
VOC EL51	Semiconductor Devices and Circuits	
VOC EL54A	Industrial Electronics	
VOC EL54B	Industrial Electronic Systems	
VOC EL56	Digital Electronics	
VOC EL61	Electronic Assembly and Fabrication	
VOC TCH60	Customer Relations for the Technician	

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