

Lehigh Carbon Community College
Industrial Automation Technician Level 1
48 LAPs, 250 Hours

AC/DC Electrical Systems VB227

- Basic Electrical Circuits
- Electrical Measurements
- Circuit Analysis
- Inductance and Capacitance
- Combination Circuits

Mechanical Drives 1 WB502

- Introduction to Mechanical Drive Systems
- Key Fasteners
- Power Transmission Systems
- Introduction to V-Belt Drives
- Introduction to Chain Drives

Pneumatics VB780

- Pneumatic Power Systems
- Basic Pneumatic Circuits
- Principles of Pneumatic Pressure and Flow
- Pneumatic Speed Control Circuits

Hydraulics VB831

- Hydraulic Power Systems
- Basic Hydraulic Circuits
- Principles of Hydraulic Pressure and Flow
- Hydraulic Speed Control
- Pressure Control Circuits

Electrical Control Systems VB703

- Control Logic
- Sequencing Control
- Timers and Advanced Systems

Electrical Motor Control V17901

- Introduction to Electrical Motor Control
- Manual Motor Control and Overload Protection
- Control Transformers
- Control Ladder Logic
- Control Relays and Motor Starters

Industrial Electrical Wiring W17448

- Introduction to Electrical Control Wiring
- Electrical Control System Wiring

Residential Electrical Wiring W12204

- Introduction to Electrical Wiring
- Residential Wiring System Components
- Service Connections & Circuit Protection

**Programmable Logic Controllers
W40660**

- Introduction to Programmable Controllers
- Basic PLC Programming
- PLC Motor Control
- PLC Timer Instructions
- PLC Counter Instructions

Piping Systems EB526

- Metal Piping Systems
- Metal Piping Installation
- Metal Tubing Systems
- Hoses

Electronic Sensors WB837

- Introduction to Electronic Sensors
- Electronic Sensor Applications

Power Distribution W17471

- Intro to Raceways
- Basic Conduit Bending
- Advanced Raceways
- Conductor, Disconnects and Overload Protection
- Conduit Sizing and Wire Pulling Techniques