

Lehigh Carbon Community College
Industrial Electrical Technician - Level 1
44 LAPs - 238 Hours

AC/DC Electrical Systems – VB227

- Basic Electrical Circuits
- Electrical Measurements
- Circuit Analysis
- Inductance and Capacitance
- Combination Circuits
- Transformers
- DC Theory

Electrical Systems Control – 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
- Introduction to Troubleshooting
- Systems Troubleshooting
- Reversing Motor Control
- Automatic Input Devices
- Basic Timer Control: On-Delay and Off-Delay

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

Electronic Sensors – WB837

- Introduction to Electronic Sensors
- Electronic Sensor Applications

Electrical Power Distribution – W17471

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

Programmable Logic Controllers – W40660

- Introduction to Programmable Controllers
- Basic PLC Programming
- PLC Motor Control
- Discrete I/O Interfacing
- PLC Timer Instructions
- PLC Counter Instructions
- Introduction to PLC Troubleshooting
- PLC Systems Troubleshooting
- Event Sequencing

Electro-Fluid Power – WB861

- Introduction to Electrical Control Systems
- Power Devices
- Sequencing Control