

Lehigh Carbon Community College
Industrial Mechanical Technician Level 1
50 Labs - 250 Hours



AC/DC Electrical Systems – VB227

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

Basic Mechanical Drives – WB502

- Introduction to Mechanical Drive Systems
- Key Fasteners
- Power Transmission Systems
- Introduction to V-Belts
- Introduction to Chain Drivers

Hydraulics – VB831

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

Pneumatics – VB780

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

Mechanical Drives 2 – WB503

- Heavy Duty V-Belt Drives
- V-Belt Selection and Maintenance
- Synchronous Belt Drives
- Lubrication Concepts
- Precision Shaft Alignment
- Couplings
- Heavy Duty Chain Drives

Mechanical Drives 3 – WB504

- Plain Bearings
- Ball Bearings
- Roller Bearings
- Antifriction Bearing Selection and Maintenance
- Gaskets and Seals

Piping Systems – EB526

- Metal Piping Systems
- Metal Piping Installation
- Metal Tubing Systems
- Hoses
- Two Way Valves

Residential Electrical Wiring – W12204

- Introduction to Electrical Wiring
- Residential Wiring System Components

Electro-Fluid Power – WB861

- Power Devices
- Control Relays
- Sequencing Control

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