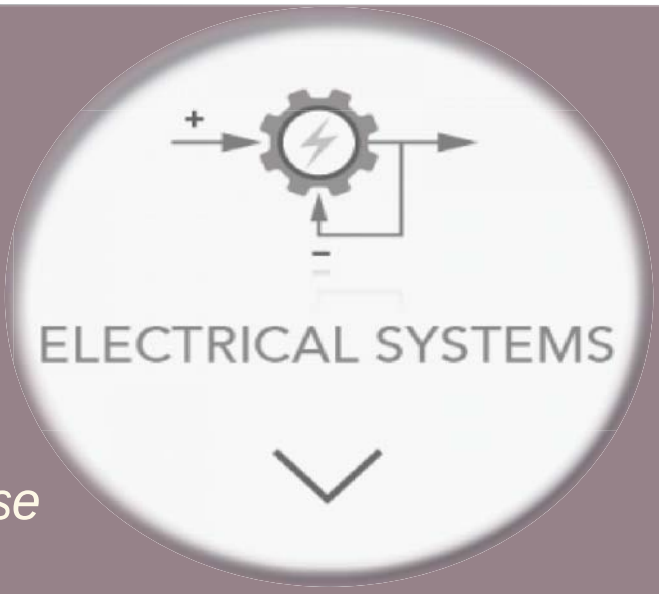
Snead State Community College Workforce Development



Self-Pace Online Training
$100.00 per student, per course

Intermediate Electrical Systems for Manufacturing Technicians

This course provides continuing instruction on electrical control systems for manufacturing. The Intermediate Electrical Systems for Manufacturing Technicians course teaches electric relay control of AC electric motors found in industrial, commercial, and residential applications. Learners gain understanding of the operation, installation, design, and troubleshooting of AC electric motor control circuits for many common applications. Develops skills in interpreting schematics, system design, motor start / stop circuits, motor sequence control, reversing motor control, and motor jogging. Safety is emphasized throughout, highlighting motor safety, lockout/ tagout and safety interlocks.

- Introduction to Electrical Wiring
- Wound-Rotor Machines
- Motor Speed and Torque
- Control Transformers
- Manual Motor Control and Overload Protection
- Capacitor-Start AC Motors
- Service Connection and Circuit Protection
- Reversing Motor Control
- DC Series Motors
- Troubleshooting DC Motors
- Introduction to Electrical Control Wiring
- Wiring Electrical Panels
- Latching Stop Pushbutton
- Control Ladder Logic
- Timers and Counters
- Basic Timer Control
- Troubleshooting
- Workplace Safety

Advanced Electrical Systems for Manufacturing Technicians

This advanced course provides a comprehensive lesson on the function, operation, installation, and construction of electrical wiring and wiring components. More specifically, it covers areas like electrical control system wiring, pneumatic control circuit wiring, conductors, disconnects, and overcurrent protection.

- Power Generation and Distribution
- Motor Performance
- Three-Phase AC Induction Motors
- Synchronous Motors
- Split-Phase AC Motors
- SCR Motor Control
- Braking Methods
- Reduced Voltage Starting Circuits
- Alternators
- Alternator Synchronization Methods
- Introduction to Raceways
- Conduit Sizing and Wire Pulling Techniques
- Basic Conduit Bending
- Control Logic
- Timers and Advanced Systems
- Automatic Input Devices 1
- Sequencing Control
- Pneumatic Control Circuit Wiring
- PLC and VFD Electrical Control Wiring
- HMI, Ethernet, and Analog Wiring
- Systems Troubleshooting

Register Here:
www.snead.edu/tbiregistration

For more information:
Cherri Barnard, 256.840.4152, cbarnard@snead.edu
Teresa Walker, 256.840.4211, twalker@snead.edu