

Corporate Office

7042 Fairfield Business Dr.
Fairfield, OH 45014-5480
(513) 874-3225
(513) 874-3229 Fax



Electrical Controls (Including Safety & Test Equipment)

Course Description: This course is an introduction to electrical principles and practices and their use in industrial applications. Safety begins the course and is discussed throughout. AC/DC fundamentals including resistance, voltage sources, Ohm's Law, inductance, capacitance and three-phase AC transformers is then introduced. Simple circuit analysis is covered which ties the concepts to real world applications. A look at test instruments follows, as students are given thorough hands-on work with various meters. Hands-on exercises, and if possible, visits to the plant floor are incorporated throughout the course to reinforce concepts.

Prerequisites:

Textbooks: Electrical Principles and Practices and/or Troubleshooting Electrical Systems.

Learning Objectives:

- Safety
- Review who OSHA, NEC, and NFPA
- Explain the hazards associated with electrical current and voltage
- AC/DC Theory/Fundamentals
- Voltage, current, resistance, power, capacitance, and inductance
- Ohm's Law
- Identify basic electrical symbols
- Review of basic series and parallel circuits
- Electrical test equipment and measurements
- Test lights, voltage indicators, digital multimeters, ohm meters, and mega-ohm-meters
- Use of amp probe meters