

## Grounding and Bonding Class

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### Description

This course is designed to provide the engineer, the electrician and anyone involved with the electrical systems in our facilities, the knowledge of effective grounding. This course takes students through lecture, exercises and labs, to provide them with knowledge of how grounding and

bonding must be an integral part of all electrical systems. The labs provide hands-on experience with the actual material and equipment used in grounding and bonding. Overall the course provides a complete range of grounding and bonding situations that arise with electrical installation. Also included is a discussion of real world examples and the troubleshooting to solve them.

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### Outline

- Overview of Article 250, Grounding, NEC 2002
- Electrical Theory Applicable to Grounding
- Grounding for Safety
- Faults
- Grounding Electrode System
- Grounding Electrode Conductor
- Circuit and System Grounding
- Grounded Conductor
- Main Bonding Jumper
- Equipment Grounding Conductor
- Equipment and Enclosure Bonding
- Equipment and Enclosure Grounding
- Grounded Circuit Conductor for Grounding
- Ground Fault Protective Equipment
- Separately Derived Systems
- Two or More Buildings Supplied by One Service
- Calculating Fault Currents and Grounding

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### Prerequisites

None

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### Course Length

32 hours/ Up to 12 participants.

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### Performance Objectives

At the completion of this course the participant will have developed an understanding of Grounding and Bonding practices, and troubleshooting skills to make the facility a safer workplace.