

## COURSE OUTLINE



### Hands-On Electrical Safety Skills Demonstration Using Touring Lab

8-Hour Course

Maximum 14 students

#### OVERVIEW

This training combines industry expertise with the opportunity for students to participate in hands-on electrical activities on actual equipment. OSHA and NFPA 70E training requirements include a demonstration of skills, yet it can be challenging to accomplish in training. This course brings a real-world depth to the classroom and provides opportunities for students to understand where troubleshooting ends and “working on” begins.

Attendees will work through a variety of electrical tasks on common electrical equipment. This will be accomplished following established safety principles, forms and safe work practices, with the guidance of the instructor.

#### REFERENCES

*Current NFPA 70E Standard, NEC, OSHA Regulations (as applicable)*

#### MATERIALS

*Hands-On Electrical Safety Skills Demonstration Workbook*

#### Tasks

1. Inspect PPE, Tools and Test Equipment
2. Check Cords, GFCI's, Review NEC 590.6(B) Assured Equipment Grounding Checks
3. Verify an Electrically Safe Work Condition/ Lock Out/Tag Out
4. Troubleshoot Control Panel
5. Troubleshoot Generator Panel
6. Change the Motor Acceleration Time on a Motor Starter with Variable Frequency Drive and PLC Controller
7. Rack Out Switchgear Circuit Breaker for Maintenance and Inspection
8. Install Personal Protective Grounds on De-Energized Equipment
9. Wire Dual Voltage Motor Connections and Check for Winding Faults and Failures in Motor Simulators

#### Objectives

- Properly select PPE based on 70E tables or equipment labels, or when no labels are available
- Safely troubleshoot control & power equipment
- Be able to determine when live work permits are required and how to fill them out
- Adopt good electrical safety habits for many common tasks

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### *Location Requirements*

**Meeting space:** 620 sq ft minimum

**Equipment:** Tables 9 – 2' x 6' or equivalent  
Chairs 12 minimum, 24 preferred  
Rubber Insulating Gloves Students should bring their gloves to class

**Room availability:** Setup Afternoon prior to training  
Training All Day  
Teardown Evening and/or morning after training

**Support:** 2 customer employees to assist with setup and teardown