



**Gulf Coast Training Institute (GCTI)**  
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# Electrical Safety for Qualified Electrical Workers

**Cost:** \$795 per person

**Location:** GCTI and other potential locations

**Meals provided:** breakfast & lunch

**Prerequisites:**

Participants should have basic electrical knowledge, training, and experience.

**Applicable personnel:**

Electrical technicians, HVAC technicians, field service personnel, electricians, multi-craft workers, supervisors and engineers responsible for employees that work on or near energized equipment at 50 volts and above who would be classified as “qualified” by OSHA.

**NOTE:** This course is designed to meet the training requirements in NFPA 70E Section 110.2(A) and relevant, applicable OSHA training requirements.

**Description:**

The Electrical Controls and Troubleshooting course will cover safety first, then OSHA Requirements regarding troubleshooting and qualified persons. Then, the following topics are addressed: Start/Stop Circuits, HOA (Hand Off Automatic) Wiring, Permissive and Interlock Circuits, Relay Logic vs PLC Logic, Transformer Wiring, and Wiring Schematics. The course will then describe using electrical drawings for troubleshooting and using electrical meters to perform circuit measurements. Finally, the course will cover how to develop a logical, systematic approach to troubleshooting.

**Length:** 2 day course

**Time:** 8:00 AM - 4:30 PM

**Specific topics covered:**

- Understand the interaction between NFPA 70E and OSHA requirements
- Recognize, define, understand and avoid electrical hazards and risks (Shock, arc flash and arc blast)
- Identify safety policies and procedures employers are legally required to provide for their workers
- Describe the safety procedures needed to work safely while exposed to live circuits
- Safe work practices for work on or near metal clad switchgear, substations, motor control centers medium voltage motor starters and facility electrical systems
- Determine arc flash PPE categories for many common workplace tasks and conditions
- Recognize the intent and limitations of personal protective equipment
- Describe requirements for energizing and de-energizing power circuits including how to place equipment in an electrically safe work condition
- How to develop and implement a JSA/JHA to address hazards and plan the required steps needed to work safely on or near energized conductors and circuit components
- How to properly utilize lockout/tagout (LOTO) requirements and perform absence-of-voltage testing to ensure an electrically safe work condition
- How to inspect insulated tools and understand their limitations of use

- How to select and apply temporary grounds as well as specific equipment grounding hazards including step and touch potentials
- Identify the elements of an Electrical Hazard Analysis Use the NFPA 70E Arc Flash PPE Tables to determine Arc Flash PPE Category for various tasks
- Identify safety-related maintenance requirements for a wide range of electrical equipment, including those specific to battery systems, electrical distribution equipment, and safety grounding equipment
- Identify the hazards to personnel working with equipment and employee responsibilities

**Course Materials:**

Textbook and classroom supplies; NFPA70E available at additional cost

**2025 Course offerings (all times are 8:00 a.m. to 4:30 p.m.):**

Sept. 8<sup>th</sup> & 9<sup>th</sup>  
Sept. 15<sup>th</sup> & 16<sup>th</sup>  
Sept. 22<sup>nd</sup> & 23<sup>rd</sup>  
Sept. 29<sup>th</sup> & 30<sup>th</sup>  
Oct. 6<sup>th</sup> & 7<sup>th</sup>  
Oct. 13<sup>th</sup> & 14<sup>th</sup>  
Oct. 20<sup>th</sup> & 21<sup>st</sup>  
Oct. 27<sup>th</sup> & 28<sup>th</sup>  
Nov. 3<sup>rd</sup> & 4<sup>th</sup>

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