

# Electrical Safety - NFPA 70E

## Level 1 - Qualified Electrical Worker 1 - QEW 1

This course is designed to give workers the skill and knowledge to work in close proximity of electrical conductors and circuit parts. Students will understand the safe work practices needed to with shock hazards.

THIS COURSE IS ONLY FOR WORKERS WHO SERVICE ELECTRICAL EQUIPMENT THAT DOES NOT PRESENT AN ARC FLASH HAZARD. Example: Working with branch circuits, changing switches, changing outlets, changing ballast and other equipment that is labeled NON ARC RATED.

### Topics:

- Understanding shock hazards.
- Creating an electrically safe work condition for shock hazards.
- Lockout/Tagout
  - What is Lockout/Tagout
  - Why is Lockout/Tagout important
  - When to Apply Lockout/Tagout
  - Interlocks vs. Lockout/Tagout
  - Why do Accidents Happen
  - What Roles do we have in a Lockout/Tagout Process
  - Identifying Lockout/Tagout Energy Sources
  - What are Lockout/Tagout Programs & Procedures
  - What are the Lockout/Tagout Steps & Applications
  - Explain Group Lockout/Tagout
  - How to incorporate a Shift & Personnel Change
  - How to Test & Adjust Machines
  - Managing Contractors
  - Management Changes
- Safe use of multimeters
  - Inspection of DMM
  - DMM Abbreviations, Symbols, and Terminology
  - DMM Displays
  - DMM Advanced Features
  - Measuring AC Voltage
  - Measuring DC Voltage
  - Measuring Resistance and Continuity Testing
  - Measuring AC and DC Current
  - Introduction to Ohm's Law and Power Formula
  - DMM Accessories
  - DMM Selection

**HANDS ON ELECTRICAL SAFETY CLASS**

**Course Length:** 2 Days + 1 Day for Every 10 students

**Prerequisites:** None

#### Day 1

- Shock Hazards
- Lockout/Tagout
- Hands on exercises on LOTO

#### Additional Testing Days

- Testing
- Hands on evaluations

#### Day 2

- Safe use of multimeters
- Hands on exercises using multimeters

**STUDENTS ARE REQUIRED TO BRING THE FOLLOWING TO CLASS:**

- 1. A METER**
- 2. VOLTAGE RATED GLOVES - CLASS 1 or CLASS 2**