



Continuing education for electrical workers to ensure and electrically safe work environment and work practices

I. Course Title:

NEC

II. Course Objective:

At the end of this class attendees will show increased knowledge and awareness of NFPA 70 (NEC) updates and current regulations, standards and industry best practices.

III. Course Drivers:

2014 NFPA 70,

IV. Course Outcomes:

- a. Increased awareness NFPA 70 (NEC) and the code change process
- b. Working knowledge of industry regulations, standards and industry best practices focused in protecting the public from electrical hazards
- c. Knowledge of critical elements to include when developing a compliant company electrical safety program
- d. Understanding of safe work practices to be employed
- e. Show proficiency of a working knowledge of current NFPA 70 (NEC), NFPA 70E (Electrical Safe Work Practices) and NFPA 70B (Recommended Practice for Electrical Equipment Maintenance) that apply to electrical safety
- f. Demonstration of skills proficiency by successfully passing test at end of course
 - i. Show proficiency in basic installation requirements
 - ii. Recognize hazardous location identification & design issues
 - iii. Understand Codes, standards, certification, and marking
 - iv. Apply other protective schemes & maintenance
 - v. Understanding the importance of grounding & bonding techniques

V. Specific Learning Objectives:

- a. Appropriately applying the NEC® Article 90
- b. Understand basic electrical installations requirements Article 110
- c. Show skills in sizing and protecting branch circuits and feeders Article 210
- d. Understand service definitions and requirements Article 230
- e. Apply appropriate rules to conductors and over-current protection Article 240
- f. Understand the importance of properly sizing and installing grounding & bonding Article 250
- g. Recognize differing wiring methods available for use in differing environments Article 300
- h. Understanding raceway and box fill requirements Article 300
- i. Show skills in grounding of panel boards, switchboards and disconnects Article 408
- j. Appropriately select equipment for general use article 400
- k. Sizing, selecting, protecting and grounding motors, generators, AC & refrigeration, and fire pumps Articles 430, 440 and 695
- l. Understand transformer sizing, operations and protection article 450



- m. Navigating the rest of the NEC® special locations Articles 500 & 600
- n. Understanding special locations and installations Chapters 7 and 8

VI. Target Audience:

- a. Electricians
- b. Instrumentation technicians
- c. Electrical Engineers
- d. Operators of Electrical Systems

VII. Activity Description

- a. Attendees show proficiency through class activities in navigating the NEC and achieving a minimum of 80% on the course subject quizzes and tests

VIII. Course Length:

Course can be tailored to meet client needs. Outcomes and Learning Objectives are not reduced while depth of class activity times are modified to meet time constraints

- a. 8 CEUs
Eight (8) hours of instructional time and activities within a single day
Updates to 2014 NFPA 70 (NEC) are emphasized
- b. 16 CEUs
Sixteen (16) hours of instructional time and activities over two consecutive days
Electrical installation, maintenance and safety are emphasized

NOTE: Check with your licensing agency for acceptance of LEE/WESS issued CEU's in your state