



## 2017 NATIONAL ELECTRICAL SAFETY CODE (NESC)

Single Class Capacity: 35  
Duration: 3 Days - 24 Hours

This course is intended for experienced and/or new lineman, design engineers, compliance and safety personnel involved with overhead and underground distribution construction, maintenance or repair of electrical lines and equipment as well as communication linesman.

Get updated on the numerous changes to the 2017 edition. Critical changes to many charts and tables.

### WHAT THIS COURSE COVERS

- Changes in Grounding Requirements
- Supply Station Rules
- Overhead and Underground Installation, Maintenance and Temporary Repair Rules
- Work rules
- Changes to Loading and Sag Rules
- Information Addressing Aeolian Vibration
- Organizational Format
- Scope and Purpose
- General Application and Overview
- Grounding Rules
- Powerline Rules
- Communication Rules
- Vegetation management
- New Requirements and Exemptions for Protective Clothing

### WHO SHOULD TAKE THIS?

- Linemen & Utility workers
- Electricians working on electrical distribution systems

### COURSE OUTCOMES

- Understand difference for NESC and NEC and state when each is code is applied.
- Interpret and apply installation requirements for Electrical Utilities
- Understand and apply NFPA 70E electrical safe work practices to utility work



Every NTT course is eligible for CEUs (or Continuing Education Units) with your governing board approval or your states approval.



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## COURSE AGENDA

### 2017 NATIONAL ELECTRICAL SAFETY CODE, CS-2017

- History and direction of the NESC
- Purpose (Who and What this code applies to)
- Scope (Now includes wind and solar energy as sources of generation)
- Working in conjunction with the "National Electrical Code ®" new 2011 Article 399 (Overhead over 600 V) New 2014 NEC Articles raising the threshold of voltage to 1000 Volts
- Clarification of Rule 013 (changes and upgrades, additions or modifications that are currently compliant)
- Emergency repair rules
- Added and deleted definitions
  - Addition of definitions for communication and supply space.
  - Deletion of words or terms no longer used or outdated.
- Duct vs Conduit
- New Exceptions on 4-grounds-in each mile rule
- Grounding vs "Effective Ground"
- Grounding Electrode Materials
- Equivalent Grounding Electrodes
- Qualified Engineering Studies for new grounding systems
- Grounding of metal reinforced structures, use as an electrode
- Revisions and reorganizing the guy insulator rules
- Expanded vegetation management rules
- Supply circuits used for communication operation
- Exceptions for clearances over residential driveways
- Exceptions for clearances over spaces and walkways for pedestrians and restricted traffic
- Modification of clearance adders for Rule 233 Clearances between conductors, different structures, horizontal and vertical clearances
- Clearances over swimming pools
- Clearances to communication antennas in communication and supply space
- Clearances to street light brackets
- Grades of Construction
- Loading requirements wind speeds
- Aeolian Vibration
- Grades of construction for service drops
- Insulator material and marking



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## COURSE AGENDA (CONT)

- Insulator factory tests
- Insulator mechanical strength
- Underground grounding requirements changes
- Separation of conduit systems from gas and other lines
- Quality of backfill
- Changes in burial depth rules
- Changes in random separation rules for underground
- Changes in 4 grounds per mile for underground direct buried cables
- Safety signs for sub-stations
- Arc flash Rule changes
- Fall protection
- Work Rules for excavation
- Changes to minimum approach distances (MAD)



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### EQUIPMENT & MATERIALS

#### **NTT TO PROVIDE**

- 3-days (24 contact hours) of on-site instruction
- Textbooks and lab manuals
- Classroom consumables
- Completion certificates
- Shipping, instructor fees and travel expenses

#### **CLIENT TO PROVIDE**

- Classroom, with easy access, of 500 square feet or greater.
- Projection screen, white board and/or flip chart(s).

