COURSE OUTLINE



NEC Updates for Industrial Installations

16-Hour Course

PREREQUISITE » Licensed electrician, journey or master level

» Prior training in National Electrical Code (proof may be required)

OVERVIEW This course provides information regarding changes in the National

Electrical Code (NEC) that impact electrical installations. Developed to bring workers up to speed on the latest edition of the NEC, it covers updates throughout the code, while focusing on the most impactful changes.

REFERENCES NEC 2020

MATERIALS *e-Hazard Workbook, National Electrical Code (2020)*

1. General Requirements for Electrical Installations

2. Wiring and Protection

- Use and Identification of Grounded Conductors
- Branch Circuits, Feeders, Services
- Branch-Circuit, Feeder and Service Calculations
- Overcurrent Protection
- Overvoltage Protection
- · Grounding and Bonding

3. Wiring Methods and Materials

- Conductors for General Wiring
- Cabinets, Outlets, Devices, Enclosures
- Updates to Cables, Conductors & Raceways

4. Equipment for General Use

- Flexible Cords and Cables
- Fixture Wires, Switches, Receptacles
- Industrial Control Panels
- Luminaires, Lampholders and Lamps
- Appliances and Heating Equipment
- Motors, Motor Circuits and Controllers
- Air-Conditioning and Refrigerating Equipment
- Generators and Transformers
- Other Equipment

5. Special Occupancies

- Hazardous Locations
- Commercial Facilities
- Health Care Facilities
- Assembly Occupancies
- Marinas and Boatyards
- Temporary Installations

6. Special Equipment

- Electrical Signs and Outline Lighting
- Elevators, Escalators, Lifts
- Electric Vehicle Charging Systems
- Electric Welders
- Information Technology Equipment
- Solar Photovoltaic (PV) Systems and Supply Stations

7. Emergency Systems

- Standby Systems
- Critical Operations Power Systems (COPS)
- Class 1, 2 and 3 Remote-Control, Signaling and Power-Limited Circuits
- Energy Management Systems
- Fire Alarm Systems
- Optical Fiber Cables

8. Communications Systems

- General Requirements for Communication Systems
- Communications Circuits
- Network-Powered Broadband Communications Systems
- Premises-Powered Broadband Communications Systems

9. Tables Updates