



Winter
2024

- **34 hour Package only \$695.00 till December 31.**
- The largest selection of topics available anywhere.
- On-line classes via ZOOM. They are interactive. You can ask questions and network with other people. Once you sign up we will give you all the instructions.
- We are approved in DE, PH, & PA. We are approved for P.E. CEUs in NJ. Call for more info.
- All seminars are subject to cancellation or rescheduling.
- **Call or email Joanna - (908) 494-1353, joanna@ita-seminars.com**

New Topics:

1. **NJ Energy Codes - 8 hr**
2. **Electrical Vehicle Chargers - 8 hr - updated**
3. **Service Calculations - 2020 NEC - 8 hr**



4. **Surge Protection Devices - 4 hr**
5. **Low Voltage & Data Wiring - 4 hr**
6. **NEC 2020 Code Refresher - 8 hr**



10 hour 2023 NEC Electrical Code Update Seminar

All courses have been approved by NJ Board of Electrical Contractors for continuing education requirements.

CHERRY HILL

Days Inn

525 Rt. 38 East, Cherry Hill, NJ 08002

Course #

- (5CH-23) January 24, Wed., 4 pm to 9:30 pm
January 25, Thur., 4 pm to 9:30 pm
- (6CH-23) March 14, Thur., 9 am to 3 pm
March 15, Fri., 9 am to 3 pm

BORDENTOWN

Holiday Inn Express

195 Rt. 130, Bordentown, NJ 08050

Course #

- (3B-23) December 7, Thur., 8 am to 2 pm
December 8, Fri., 8 am to 2 pm
- (4B-23) February 19, Mon., 8 am to 2 pm
February 20, Tue., 8 am to 2 pm

ATLANTIC CITY

Hampton Inn

338 E White Horse Pike, Absecon, NJ 08205

Course #

- (3AC-23) December 1, Fri., 9 am to 3 pm
December 2, Sat., 9 am to 3 pm
- (4AC-23) March 1, Fri., 9 am to 3 pm
March 2, Sat., 9 am to 3 pm

HAZLET

Holiday Inn

2870 Highway 35, Hazlet, NJ 07730

Course #

- (5HT-23) February 6, Tue., 4 pm to 9:30 pm
February 7, Wed., 4 pm to 9:30 pm
- (6HT-23) March 18, Mon., 8 am to 2 pm
March 19, Tue., 8 am to 2 pm

SOMERSET

Clarion Hotel

60 Cottontail Lane, Somerset, NJ 08873

Course #

- (4S-23) December 11, Mon., 4 pm to 9:30 pm
December 12, Tue., 4 pm to 9:30 pm
- (5S-23) January 30, Tue., 8 am to 2 pm
January 31, Wed., 8 am to 2 pm
- (6S-23) March 25, Mon., 4 pm to 9:30 pm
March 26, Tue., 4 pm to 9:30 pm

TOTOWA

Wyndham Garden

One Route 46 West, Totowa, NJ 07512

Course #

- (3T-23) January 16, Tue., 8 am to 2 pm
January 17, Wed., 8 am to 2 pm
- (4T-23) February 16, Fri., 5 pm to 9 pm
February 17, Sat., 8 am to 3pm

FAIRFIELD

Best Western

216 US Hwy 46 East, Fairfield, NJ 07004

Course #

- (4F-23) November 20, Mon., 8 am to 2 pm
November 21, Tue., 8 am to 2 pm
- (5F-23) March 5, Tue., 8 am to 2 pm
March 6, Wed., 8 am to 2 pm

HACKETTSTOWN

Quality Inn

1925 NJ 57, Hackettstown, NJ 07840

Course #

- (2H-23) February 27, Tue., 8 am to 2 pm
February 28, Wed., 8 am to 2 pm



Each attendee is **required to bring a 2023 NEC Code Book or recognized book of 2023 code changes for the 10 hour code class. Unfortunately, at this time we are not going to have books for sale at the seminar as in the past.**



2 Hour Gas Piping Certification

NEW LAW:

All Electrical Contractors that do generator installations:

NJ law now requires certification for gas pipe installation – natural gas or propane.
Our 2 hour **gas piping** class will enable you to meet this requirement (PL 2019 c.260).

This is a one time “one-and-done” certification.

We have now the following dates on Zoom :

#9 December 19, Tue., 6 pm - 8 pm

#10 January 31, Wed., 6 pm - 8 pm

#11 March 6, Wed., 6 pm - 8 pm

Price \$89.00



24 hour NJ Board Approved Seminars

All courses have been approved by NJ Board of Electrical Contractors for continuing education requirements.

November classes on-line:

9GN-24 **Generators Resid. & Comm.**, 8 hr, Nov. 28 & 29, Tue. & Wed., 5pm-9pm
3T-24 **Transformers**, 4 hr, November 29, Wed., 8 am - 12 pm

December classes on-line:

9EV8-24 **Electrical Vehicle Chargers**, 8 hr, Dec. 4 & 5, Mon.&Tue., 8am-12pm
6SC-24 **Service Calculations**, 8 hr, Dec. 4 & 5, Mon.&Tue., 5 pm - 9 pm
10GN-24 **Generators Resid. & Comm.**, 8 hr, December 9, Sat., 8 am - 5 pm
6EC-24 **NJ Energy Codes**, 8 hr, December 16, Sat., 8 am - 5 pm
6POE-24 **Power Over the Ethernet**, 8 hr, December 20, Wed., 8 am - 5 pm
6R20-24 **NEC 2020 Refresher**, 8 hr, December 27, Wed., 8 am - 5 pm
3HL-24 **Horticulture Lighting**, 4 hr, December 28, Thur., 8 am - 12 pm
7OP-24 **Overcurrent Protection**, 4 hr, December 28, Thur., 5 pm - 9 pm

January classes on-line:

5C-24 **Calculations**, 8 hr, January 6, Sat., 8 am - 5 pm
6VFD-24 **VFDs**, 4 hr, January 9, Tue., 5 pm - 9 pm
6LV-24 **Low Voltage & Data Wiring**, 4 hr, January 10, Wed., 8 am - 12 pm
11GN-24 **Generators Resid. & Comm.**, 8 hr, January 12, Fri., 8 am - 5 pm
10EV8-24 **Electrical Vehicle Chargers**, 8 hr, January 13, Sat., 8 am - 5 pm
8SP-24 **Surge Protection Devices**, 4 hr, January 22, Mon., 5 pm - 9 pm
7R20-24 **NEC 2020 Refresher**, 8 hr, January 23, Tue., 8 am - 5 pm
5M-24 **Motors & Motor Controls**, 4 hr, January 29, Mon., 5 pm - 9 pm

February classes on-line:

11EV8-24 **Electrical Vehicle Chargers**, 8 hr, February 2, Fri., 8 am - 5 pm
9SP-24 **Surge Protection Devices**, 4 hr, February 3, Sat., 8 am - 12 pm
5GB-24 **Grounding and Bonding**, 8 hr, February 4, Sun., 8 am - 5 pm
5ES-24 **Electrical Safety**, 8hr, February 9, Fri., 8 am - 5 pm
4T-24 **Transformers**, 4 hr, February 12, Mon., 5 pm - 9 pm
8OP-24 **Overcurrent Protection**, 4 hr, February 13, Tue., 8 am - 12 pm
7AR-24 **AC & Refrigeration Equipment**, 4 hr, February 13, Tue., 5 pm - 9 pm
7EC-24 **NJ Energy Codes**, 8 hr, February 15, Thur., 8 am - 5 pm
7SC-24 **Service Calculations**, 8 hr, February 22, Thur., 8 am - 5 pm
654-24 **Pools, Spas and Hot Tubs**, 4 hr, February 23, Fri., 5 pm - 9 pm
3EE-24 **Electrical Estimating**, 8 hr, February 24, Sat., 8 am - 5 pm
12GN-24 **Generators Resid. & Comm.**, 8 hr, February 25, Sun., 8 am - 5 pm

March classes on-line:

9OP-24 **Overcurrent Protection**, 4 hr, March 4, Mon., 5 pm - 9 pm
8R20-24 **NEC 2020 Refresher**, 8 hr, March 8, Fri., 8 am - 5 pm
8SC-24 **Service Calculations**, 8 hr, March 9, Sat., 8 am - 5 pm
4HL-24 **Horticulture Lighting**, 4 hr, March 11, Mon., 5 pm - 9 pm
3MB-24 **Marine & Boatyards Electrical Systems**, 4 hr, March 13, Wed., 8 am - 12 pm
12EV8-24 **Electrical Vehicle Chargers**, 8 hr, March 20, Wed., 8 am - 5 pm
754-24 **Pools, Spas and Hot Tubs**, 4 hr, March 21, Thur., 8 am - 12 pm
3CR-24 **Conduits and Raceways**, 4 hr, March 21, Thur., 5 pm - 9 pm
6C-24 **Calculations**, 8 hr, March 22, Fri., 8 am - 5 pm

To sign up fill out the application and mail it with a check or call Joanna with the cc info - 908-494-1353, 3.5 % cc charge.
We are also excepting ZELLE, no extra charge.

ITA On-line classes are interactive :

- **Flexible scheduling**
- **You can ask questions and expect answers**
- **Mix and match early morning, day, evening and weekend**
- **Our topics are current and leading edge**

Call Joanna if you need help to put the package together

908-494-1353

email - joanna@ita-seminars.com



**Institute For
Technical
Advancement**

P.O. Box 248, Martinsville, NJ 08836



Last Chance !!!!
NJ Approved CEUs
Night, Weekend, Day classes

2 Hour Gas Piping Certification

Only from ITA - the best and most topics to choose from !!!



First and Last Name _____ License Number _____

Seminar Number _____

Seminar Number _____

Address _____

Phone # _____

E-mail address _____

- \$350.00 10 hr package - in person
- \$650.00 24 hr package - on line
- \$720.00 **34 hour package - BEST DEAL!**
- \$89.00 2 hour gas certification
- \$50.00 additional fee for each state certification other than NJ

Make check payable to: ITA

Mail the payment to: ITA

ITA
ITA
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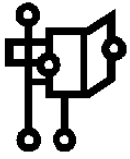


All confirmations will be e-mailed. Certificate issued upon completion. All cancellation must be in writing and received 10 days prior to seminar. \$75.00 registration fee is non-refundable. For failure to cancel, registrant is liable for total cost. \$40.00 fee required for re-scheduling missed classes online, **in-person \$75**. Rescheduling at 3 days in advance at no cost. Two forms of ID required at all seminars. Seat guaranteed by availability only. **All prepaid credits expire on March 31, 2024. No refunds for unused credits after March 31, 2024.** Credits issued per person and are not transferable. Remaining funds after March 31, 2024 are consider forfeited and cannot be applied to future cycle. All seminars are subject to cancellation or rescheduling.

To sign up fill out the application and mail it with a check to the above address or call Joanna with the cc info - 908-494-1353 3.5 % cc charge.
We are also excepting ZELLE, no extra charge.



Take the package deal for the best price!!



Course Description:

All courses have been approved by NJ Board of Electrical Contractors for continuing education requirements.

New Jersey Energy Codes - 8 hr- Of all the many adopted codes in the State of New Jersey, the New Jersey Energy Code is quickly becoming one of the hottest areas of concern for residential and commercial projects. Background, adoption, requirements, compliance, and code enforcement will be discussed, along with some practical examples -

Surge Protection Devices - 4 hr- Beginning with the 2020 NEC, surge protection is now **required** for dwelling unit services. Understanding the principles of electric surges, the different types of surge protection, and the requirements for surge protection in residential and commercial applications to meet your customer's needs and to meet code requirements is the focus of this seminar.

Low Voltage & Data Wiring, 4 hr- Great class for residential and commercial contractors as this growing market evolves. Cable types, requirements, and installation methods for Cat-6, PoE, video, security, audio and low voltage cables as per NEC requirements.

Horticultural Lighting Systems - 4 hr- Horticultural lighting for greenhouses and indoor food production is a rapidly expanding technology. These facilities require special considerations. NEC requirements, and the new NEC Art 410 Part XVI will be studied in detail.

Power Over the Ethernet - 8 hr- Ethernet cables are now being used to distribute power to LIGHTING devices as well as to IP phones and CCTV cameras and smart home applications. Opportunities for electrical contractors are limitless for those that understand this technology. This seminar discusses NEC code requirements for installation, as well as IEEE standards, PoE classes, power, voltage and current limitations, wiring methods and equipment.

Generators Res. & Commercial - 8 hr- Backup power source selection, sizing and installation are the topics of this class. Topics include NEC compliance, as well as other code requirements, installation calculations and new technologies for backup generators. The 8 hour version is extended to include more in-depth topics, commercial installations, as well as examples of practical installations.

Marine and Boatyard Electrical Systems- 4 hr- Electrical system in and around boatyards and marinas have proven to be fatal when not properly installed and maintained. This is an in-depth examination of the requirements of NEC Art. 555 for electrical installations in marinas and boatyards, including Ground Fault requirements, location of service equipment, load calculations, wiring methods, grounding requirements, bonding requirements, disconnecting means for shore power systems, motor fuel dispensing stations, hoists, and signage requirements.

Motors & Motor Controls- 4 hr- A practical approach to a difficult topic makes this course an especially useful and effective tool for anyone who will install or maintains motors and motor controls. Motor installation per NEC requirements, circuit protection, control devices and circuits including motor starters to programmable controllers, are covered as well as NEMA and IEC control components.

NEC 2020 Refresher - 8 hr -New Jersey just adopted the 2020 NEC. This course is a refresher and review of the 2020 NEC, including the New Jersey adoptions. This covers the codes you need to be working with, NOW.

Pools, Spas and Hot Tubs - 4 hr- The proper 2020 NEC requirements for swimming pools, spa and hot tubs, will be studied along with the proper electrical installation techniques required for code compliance.

Electrical Vehicle Chargers -8 hr- More and more people are choosing electric vehicles. Charging requirements, NEC installation requirements, and commercially available products for both residential as well as commercial applications will be examined. As well as rebates, utility programs and incentives.

Overcurrent Protection Devices - 4 hr- If you are a Residential, Commercial or Industrial electrician, you regularly use fuses and circuit breakers. But do you really understand the difference between current limiting fuses, instantaneous circuit breakers, thermal magnetic breakers, protective relays and all the other circuit protection options? A complete understanding of the different overcurrent protection devices their proper application and AIC ratings will be presented.

VFDs - 4 hr- Variable frequency drives have become the most popular type of motor control system for new and existing applications because their energy saving as well as their other capabilities. Many utilities are now offering rebates for the installation retrofitting with VFDs. This seminar examines the proper selection, application and installation of VFDs.

Electrical Estimating - 8 hr- Preparing a proper estimate is crucial for maintaining profitability. Different estimating and bidding procedures, take-off preparation, establishing material costs and labor rates, overhead calculations, as well as final bid preparation are the focus of this seminar.

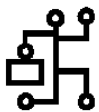
Conduits and Raceways - 4 hr- Selection, sizing, and installation of various types of conduits, raceways, pull boxes junction boxes and cable tray will be examined. NEC requirements for raceway selection, as well as examples of fill requirements will be included .

Electrical Safety - 8 hr- Electrical safety in the work place, including the concepts of Hazard/Risk evaluation, shock, electrocution, arc flash, and arc blast are some of the topic to be discussed. Other topics include Personal Protective Equipment (PPE), incident energy calculations, safety related maintenance requirements, Lockout/Tagout procedures, and electrical safety programs.

Electrical Calculations - 8 hr- Learn to make your daily calculations fast and easy! This class includes fast and easy methods for conductor, conduit sizing, ampacity requirements, overcurrent protection, motor loads, transformers, single phase and three phase circuits. Examples and real life practice situations will be given to show fast and easy methods for NEC compliance. A necessary seminar for any electrical contractor, especially those that need a refresher.

A/C and Refrigeration Equipment - 4 hr - A practical approach to understanding the often confusing calculations and requirements for power wiring of air-conditioning and refrigeration equipment and their branch circuits as per NEC 440.

Service Calculations - 8 hr - Residential, commercial and industrial service and feeder calculations in a "hands-on" workshop style class as per new NEC requirements. A great course for the apprentice as well as a refresher for the veteran contractor. Bring a calculator as well as your note book.



Your instructor: **Edward Osoliniec, PE**



(Instructor #142) Ed is involved in all aspects of electrical (contracting, design, planning, project management and education. His background includes both bachelor degree in electrical engineering and a master degree in electrical engineering from the University of California at Berkeley. He is a licensed P.E. and a licensed electrical contractor (license #8973) in NJ. He is a CPE, Certified Professional Estimator certified by the American Society of Professional Estimators. He has 20 years of classroom teaching experience in Electrical Engineering Technology at colleges in NJ, including N.J.I.T. He currently has 4 patents pending for devices he developed related to the electrical power distribution industry. Edward has combined his talents as a P.E. and electrical contractor to operate a successful electrical contracting and design business. He consults for major corporations and municipalities for electrical systems design. In the past he presented code review courses for major corporations for considerably more money and right now the same courses are offered to the general public at discount prices. His age and contracting experience are not outdated.