

EDUCATION COURSE CATALOG



2024

www.neca-pdjj.org/education/



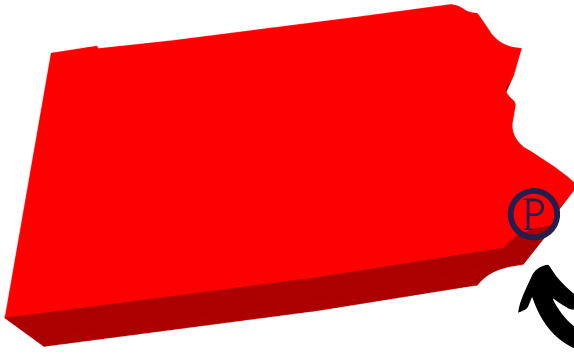
Chapter Office
Thomas J. McNulty Training Room
2003 Renaissance Blvd.
King of Prussia, PA 19406





Renewal Deadlines for Electrical Licenses

City of Philadelphia



- License must be renewed annually by the original date of licensure.
- At least eight (8) hours of continuing education each year.
- Coursework in NFPA 70 earned during the previous license period qualifies.

New Jersey

- License must be renewed triennially, expiring March 31st (2024, 2027, 2030, etc.).
- Thirty-four (34) hours of approved continuing education is required, of which nine (9) must relate to the most recent NEC. One (1) hour must relate to state statutes and rules covering installation, repair or alteration of electrical equipment for generation, transmission of electrical energy, job estimating management and business practices, supervisory responsibilities required by NJ, and others relevant to electrical contracting.



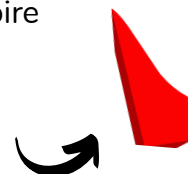
Maryland



- License must be renewed every other year by the original date of licensure.
- Ten (10) hours of CEUs based on any article of or update to the National Electrical Code (NEC) currently adopted by the Board. At least five (5) of the ten (10) hours of continuing education shall be obtained in a classroom setting.

Delaware

- License must be renewed every other year; Electrician Licenses expire on June 30th of even years (2024, 2026, etc.).
- Ten (10) hours of approved continuing education are required each renewal period; five (5) hours must be related to the National Electrical Code.





2024 Course Schedule



Basic Estimating of Electrical Construction

January 17 - 19, 2024

Small mistakes in an estimate can have a huge impact on your bid's bottom line and this course provides the tools needed to be both comprehensive and competitive. This course will discuss the process for assembling an estimate including: developing material lists, applying labor unit data, material takeoff and application of direct job costs, overhead, and profit.

Following this class, participants will be able to:

- List types of mistakes when estimating electrical construction projects and how to avoid them
- Describe the parts of an estimate
- Explain the importance of establishing the true cost for a project
- Develop an estimate to provide job management information

Continuing Education Hours: 24 Hours

CEU Approved: New Jersey

Instructor: Matthew Firestone; Firestone Consulting Group

Significant Changes to the NEC 2023 Code

February 13 & 14, 2024

Every three years, the National Electrical Code (NEC) is updated to reflect the newest installation practices utilized by the electrical industry, bringing about hundreds of revisions and new rules to the code. This training program provides attendees with a review of over 200 of the most significant changes to the NEC.

Learn about new articles and revisions to existing requirements that directly impact the electrical construction business. This high-energy program promises to deliver authoritative overviews of many of the NEC changes that must be understood by contractors, installers, and inspectors alike.

Continuing Education Hours: 10 Hours

CEU Approved: Delaware, Maryland, New Jersey, Philadelphia

Instructor: James Dollard; NECA Penn-Del-Jersey Chapter



2024 Course Schedule



Foreman Training Course

March 14, 2024

Foremen are on the front line of every company's success. Foremen typically start as journeymen, then are promoted based on their technical skills. A typical foreman is highly qualified technically but less qualified in management. It is ironic that it takes five (5) years of education for an individual to be a journeyman, but no training is required to be a foreman. This training is designed specifically to meet the needs of electrical contractors. The proposed program consists of nine (9) comprehensive courses that focus on the knowledge and skills that every foreman/supervisor must master to be an effective manager of people, time, equipment, and materials.

Curriculum:

- Module 1: Oral and Written Communication
- Module 2: Planning and Scheduling
- Module 3: Field Productivity Improvement
- Module 4: Understanding Cost: Understanding the Estimate
- Module 5: Leadership and Motivation: Team Building
- Module 6: Site Safety and Accident Prevention
- Module 7: Managing the Project: The Foreman's Role
- Module 8: Problem Solving and Decision Making
- Module 9: Understanding Human Nature

Continuing Education Hours: 6 Hours

CEU Approved: New Jersey

Instructor: Jay Jones; NECA National

Project Financials That Every Project Manager Needs to Know

April 30, 2024

Project financials are a weakness in many organizations, yet our success with our banking and bonding partners relies heavily on this data. Many are left uncertain when it comes to knowing the outcome of projects while they are occurring and experience significant fade or gain at the end of the job that was not predicted. Financial acumen can be the line in the sand between staff being project managers versus project witnesses. The solution to this is defined standard practices to set your team up to win. In this session, we will discuss the importance of managing cash flow and how to produce accurate project forecasts, best practices for producing a schedule of values, billing and collections standards to focus on getting the cash in the door timely, steps required to produce an accurate project forecast and the tremendous effect labor productivity tracking has on the quality of project financial projections.

Continuing Education Hours: 6 Hours

CEU Approved: New Jersey

Instructor: Stephane McShane; Maxim Consulting Group



2024 Course Schedule



Leadership for the Field and Office

May 16, 2024

This course will help the participants develop the skills and understanding they need to lead others. They will learn to persuade others, negotiate and problem solve, and develop collaboration among team members.

Following this course, participants will be able to:

- Explain how to effectively deal with different people (and different behavior styles)
- Apply Situational Leadership in coaching situations
- Build consensus, cohesion, buy-in, and team commitment
- Diagnose the focus and source of conflicts
- Utilize appropriate conflict management strategies
- Resolve interpersonal confrontations through collaborations

Continuing Education Hours: 6 Hours

CEU Approved: New Jersey

Instructor: Mark Federle, Ph.D., P.E., CPC; Marquette University

2023 NEC Changes that Impact Electrical Contractors

June 6, 2024

The National Electrical Code is the most widely recognized electrical code in the world. Every three years it is updated to reflect the newest installation practices used by the electrical industry.

This course provides an authoritative, thorough review of the most significant changes in the 2023 NEC, including new articles and revisions that contractors and installers alike must understand and apply in their daily operations. Electrical installations, both in new construction and renovations are subject to compliance with NEC requirements. As jurisdictions adopt and enforce each new edition of the NEC, it is very important that electrical contractors, electrical workers, and electrical inspectors are in tune to the latest minimum requirements.

This high-energy, interactive program provides electrical contractors and inspectors with information that helps them with continued success in installation and compliance.

Continuing Education Hours: 4 Hours

CEU Approved: Delaware, Maryland, New Jersey, Philadelphia

Instructor: James Dollard; Penn-Del-Jersey Chapter, NECA



2024 Course Schedule



NEC Article 517 - Health Care Facilities

June 6, 2024

This course covers requirements for health care occupancies as required in NEC Article 517. A primary focus is placed on the applicable definitions and installation requirements encountered in all health care occupancies. Requirements for branch circuit conductors in patient care spaces and other wiring and protection requirements are covered to eliminate NEC violations in the rough-in stage.

This course does the deep dive into practical/feasible code compliant installation practices. The applicability of Part II wiring and protection is reviewed and a major focus is placed upon general installation criteria, permitted wiring methods, redundant equipment grounding conductor requirements, panelboard bonding, ground fault protection, specific requirements for Category 1 & 2 spaces including hospital grade devices, and wet procedure locations. Requirements for Part III the essential electrical system are reviewed including applicability, requirements for types/power sources, separate branches, separation, typical configurations, isolated systems, mechanical protection, capacity, power transfer, and more. Also covered are key requirements for inhalation anesthetizing locations, x-ray installations, communications/fire alarm data systems and isolated power systems.

Continuing Education Hours: 4 Hours

CEU Approved: Delaware, Maryland, New Jersey, Philadelphia

Instructor: James Dollard; Penn-Del-Jersey Chapter, NECA

The Future is Now - BIM

August 8, 2024

Building Information Modeling (BIM) is a process that goes far beyond switching to new software, it requires changes to traditional phases and more data sharing than is common during the design and construction stages. Electrical contractors, manufacturers, suppliers and distributors are often short-changed during the MEP coordination process due to their under-utilization of technology, such as BIM, which can be used to assist them in performing Preplanning and pre-fabrication. This course focuses on what electrical contractors need to know about BIM and the process of generating and managing building data during its lifecycle.

This program is based on the research report *Building Information Modeling for Electrical Contractors: Current Practice and Recommendations* funded by ELECTRI International.

Following this course, participants will be able to:

- Discuss the design and construction stages of a project when using BIM
- Explain how to use the BIM process for Preplanning and pre-fabricating
- Discuss design and clash detection software
- Describe the potential cost and time savings with BIM
- Discuss the current status of BIM in the electrical contracting industry

Continuing Education Hours: 6 Hours

CEU Approved: New Jersey

Instructor: Lonny Simonian; Cal Poly State University San Luis Obispo



2024 Course Schedule



Impacts and Tools for Managing Schedule Compression

September 5, 2024

This course presents the impact of schedule compression on labor productivity for electrical contractors. Whether the compression is planned or simply the result of how the project is managed, the electrical contractor needs tools to assist them in quantifying the impact of schedule compression on the costs of completing the work for the project.

Following this class, participants will be able to:

- Estimate the impact of schedule compression on labor productivity
- Estimate the other costs associated with schedule compression
- Use various tools and approaches to compress a schedule
- Manage the potential losses in labor productivity and other project costs caused by schedule compression

Continuing Education Hours: 6 Hours

CEU Approved: New Jersey

Instructor: Mark Federle, Ph.D., P.E., CPC; Marquette University

Managing the Lifeblood of Contracting - Cash Flow

October 15, 2024

Cash flow is one of the most important issues facing contractors today. As the market continues to stay strong, companies are faced with starting new projects, hiring staff, and investing in assets to support the business. More companies go bankrupt due to cash flow issues than due to profitability. Many things can and should be done to improve cash management practices. We will explore a range of tools and techniques, from simple to complex, that allow firms to manage and control cash flow. Examples include contractual negotiation strategies, pricing and bidding practices, development of cost and resource-loaded schedules that tie to billing activities in the schedule of values, use of 12-week cash flow forecasts, project closeout procedures, and managing the billings and collection cycle. An interactive cash flow simulation provides hands-on experience that enhances the learning outcomes.

Following this course, participants will be able to:

- Discuss the importance of cash management practices
- Describe how to increase profits with billings and collections
- Identify tools and techniques that optimize cash flow
- Discuss how to maximize cash flow with process standardization
- Describe how to create transparency and accountability with measurement

Continuing Education Hours: 3 Hours

CEU Approved: New Jersey

Instructor: Stephane McShane; Maxim Consulting Group



2024 Course Schedule



Process Driven Profitability

October 15, 2024

Well defined, scalable systems and processes deployed with technology and used consistently by everyone in the company are the foundation to minimizing risk and achieving predictable results. Many contractors know and understand this concept and many have, at some point, defined their processes. Perhaps they are sitting on a bookshelf right now and are rarely used or even referenced in order to understand the company procedures.

The more a company grows the more difficult it becomes to develop and deploy these systems. Yet the need increases dramatically. This program discusses how to define standard procedures in your organization, generate buy-in that will operationalize their use, and how to utilize them as a platform to build bench depth that will move the organization to the next level.

Following this course, participants will be able to:

- Discuss the value of workflow documentation and provide examples of how best of class contractors develop and document standardize workflow
- Describe how to leverage technology in the deployment of standardized process and procedure that creates consistency and predictable results
- Identify the keys to successfully operationalizing processes including staff training and metrics that provide visibility on compliance and the bottom line impact

Continuing Education Hours: 3 Hours

CEU Approved: New Jersey

Instructor: Stephane McShane; Maxim Consulting Group

Advanced Estimating of Electrical Contracting

November 6 & 7, 2024

Developed to discuss all phases of the estimating process, this course covers all phases of preparing a competitive bid. Key topics include identifying desirable bid opportunities, analyzing the company's capabilities to insure profitable results, the estimator's role at various stages of the project, writing an effective scope letter, and identifying often hidden costs in the bid documents.

Following this course, participants will be able to:

- Discuss the steps necessary to prepare a competitive bid
- Identify the most desirable bid opportunities
- Describe how a company's capabilities can be analyzed to insure profits
- Discuss cash flow and bonding
- Discuss relevant contract terms
- Identify price adjustment techniques, overhead, and profit
- List the documents required to estimate a construction project

Continuing Education Hours: 16 Hours

CEU Approved: New Jersey

Instructor: Matthew Firestone; Firestone Consulting Group



Executive Education Sessions



Executive Education Sessions are new to the Chapter's Education Course schedule. These three (3) hour webinar sessions are held quarterly and target owners and senior management of electrical contractors.

Success in Technology Implementation

February 15, 2024

The implementation of technology continues to be a challenge for many contractors. Success lies in the specific definition of workflow first, then the evaluation of the current technology available to insert into the workflow. Standardization of these workflows enables staff to learn effectively and ramp up quickly in order to drive project success sooner.

In this session we will:

- Discuss technology strategy and its role in organizational success
- Outline successful workflow examples that drive rapid onboarding
- Examine examples of technology implementation that create transparency and repeatable, predictable results

Webinar Length: 3 Hours

Instructor: Stephane McShane; Maxim Consulting Group

Advanced Enterprise Budgeting and Forecasting

May 8, 2024

It is critical for your organization to have budgets to create transparency and accountability for the multiple business units when it comes to their profit and loss. In this session, we will discuss the foundations of planning, budgeting, and forecasting in order to create the metrics desired to have predictable profit outcomes.

In this session we will:

- Discuss the alignment required via organizational strategy definition
- Outline planning required by the different business units utilizing a bottom up approach
- List the budgeting techniques to create/clarify departmental goals and expenses
- Show the forecasting required to predict and quantify department and company profit and loss
- Show the type of metrics desired to view performance at any given time

Webinar Length: 3 Hours

Instructor: Stephane McShane; Maxim Consulting Group



Executive Education Sessions



Construction Equipment Economics ~ Building Blocks of an Effective Equipment Budget

October 23, 2024

A critical aspect in equipment-intensive construction companies is the budgeting of capital expenditures as well as annual equipment hours, owning and operating costs. This session will provide insights into the process, inputs and workflows to establish accurate and effective budgets. Learn best practices of how the internal “Equipment Triangle” of Operations, Fleet, and Accounting can collaborate to achieve success in managing, budgeting, and tracking your fleet.

Learning Objectives:

- Understand the workflow of a collaborative and comprehensive equipment budgeting process
- Effectively forecast capital expenditures
- Establish equipment hours budgets
- Understand the basics of setting equipment rates and forecasting equipment charges to jobs
- Budget depreciation, rentals and other equipment owning costs
- Identify quality inputs and sources of information to budget fuel, preventative maintenance and other variable operating costs
- Develop reports to track actual results vs. budgets

Webinar Length: 3 Hours

Instructor: Stephane McShane; Maxim Consulting Group

Look in the Mirror: An Executive’s Role in Business Development

December 11, 2024

There is nobody better at selling your company than the owners, president, and executive team members. The first step to effective business development is freeing up the executive team so that they can sell the work and close the sale. Critical to making this happen is strong organizational structure and process, and consistent execution of well-defined processes. Learn how to put structure behind the business development process that will generate results.

Learning Objectives:

- Understand the organizational structure and processes your company needs in place in order to make time for executives and business development staff to focus on building the business
- Develop a strategy for selling work that capitalizes on the markets where you have the highest potential for profitability
- Identify the role that everyone in the organization has in marketing and business development
- Learn from best practices of other contractors’ experiences how critical the executive's role is to company growth

Webinar Length: 3 Hours

Instructor: Stephane McShane; Maxim Consulting Group



Industry :30 Schedule



In addition to its NECA Education Program, the Chapter hosts thirty (30) minute quarterly “Industry :30” webinars via Zoom. These cover a range of topics relevant to Contractors and are presented by Associate Members and industry partners.

Class 4 Circuits Best Practices

March 28, 2024

Company: Flintlock Technical Services & VoltServer

Instructor: Jim Dollard & Tanios BouRamia

Labor Saving Service Solutions & Market Forecast

June 20, 2024

Company: Graybar

Instructor: Scott Kennedy

The Current State of Financial Markets

November 5, 2024

Company: Stacey Braun Associates

Instructor: Peter Willis

What Unionized Contractors Need to Know about the Changing Legal Landscape

December 12, 2024

Company: Fox Rothschild LLP.

Instructor: Andrew MacDonald

The Chapter has uploaded all previous Industry :30 webinars to YouTube and the Media Page of the Chapter’s website. These recordings are available to review at any time.

THANK YOU!

The Chapter thanks all Education Committee Members for their time and commitment to providing relevant and advanced courses to our Membership. The Committee is comprised of the following individuals:

Andrew MacDonald (Chair)
Charles H. MacDonald Electric, Inc.

Christine Meyer
Battaglia Electric, Inc.

Dan Harrison
Harrison Electrical, Inc.

Rob Triplett
Penn-Del-Jersey Chapter, NECA

For more information on courses and upcoming events, please visit the Chapter's website at <http://www.neca-pdj.org/>. Please note that course topics, dates, and times are subject to change.



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