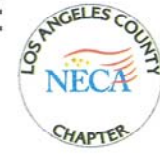




ELECTRICAL TRAINING INSTITUTE

For
NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION L.A. COUNTY CHAPTER
And
INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS LOCAL UNION NO. 11



JOURNEYMAN CLASS DESCRIPTIONS

ADVANCED LIGHTING CONTROL – This class is truly the next frontier in “Green Energy Solutions” and is a must for all electricians who want to participate in this future boom. This class will train you to correctly select, design, and install energy-efficient and cost-effective commercial, residential and industrial lighting systems. Successful completion of this class will earn you the certification required to work on these projects in the future. A mandatory on-line preparation assignment is a prerequisite for this class and must be completed prior to beginning this class.

ASBESTOS SAFETY AWARENESS – Required for all electricians who may disturb small amounts of asbestos in the course of their work. Provides training in recognizing asbestos, required regulations concerning possible contact, potential health effects, personal protection and methods of abatement. Successful completion of this class earns a one-year certificate. NOTE: This course does not qualify or certify for asbestos abatement work.

ASBESTOS SAFETY AWARENESS RENEWAL – This class provides for the renewal of the one-year certificate for asbestos safety awareness, but only if completed prior to the expiration of a valid certification. Pre-requisite: Valid Asbestos Safety Awareness Certification

BLUE PRINT READING – This course is based on the NJATC Curriculum for residential, commercial and industrial plan reading. Familiarization with the full set of drawings and application to the electrical installation is covered including symbols, details and specifications. This course is valuable for all electricians at all experience levels.

BOOM LIFT – Students who pass this 16-hour class will receive the necessary training required to safely operate an Ariel ‘Boom’ Lift. The two-day course has one day of formal classroom instruction, and one day of ‘boom’ operation, and covers everything from OSHA regulations to proper operation of the equipment. To successfully complete this course, students must demonstrate written and practical competence in the safe operation of Ariel Boom Lifts

CABLE PULLING – This course instructs the proper cable pulling techniques using state-of-the art equipment. Both hand and power pulling methods are covered.

CALCTP ACCEPTANCE TECHNICIAN – Students completing this course will learn how to properly navigate through the testing procedures and properly fill out the appropriate forms to ensure that installations meet title 24 guidelines.

COMPUTER SKILL IMPROVEMENT – For the new or novice computer user covering the very basics of operating and navigating the many capabilities of a personal computer. The basics of Microsoft Office Word and Excel are covered.

CONDUIT BENDING BASICS – This lab/lecture course will cover hands-on experience with E.M.T. and rigid types of conduit, safe-use of hand benders, mathematics and layout requirements for proper bending procedures for conduits of ½” through 1 ½”.

CONDUIT BENDING ADVANCED – Included in this lab/lecture class are the hands-on experience and layout fundamentals for 1 ½” through 4” rigid, IMC and EMT conduit with the use of electric and hydraulic bending equipment. Pre-requisite: Conduit Bending Basics

CONFINED SPACE/FALL PROTECTION – After completing this class, the student will be able to recognize the nature of the potential hazards they can be exposed to while working in or near areas classified as confined spaces. Students will learn the proper actions to take when exposed to confined space hazards, how to protect themselves and their co-workers from hazards associated with confined spaces, and the proper steps to take in confined space emergencies.

CONVENTION CENTER ORIENTATION – This class will provide the student with a basic understanding of scissor lift safety, forklift safety, power layout and distribution, and wiring of convention center booths and displays. A great class to have under your belt before taking that first Convention Center call.

ELECTRICAL VEHICLE INFRASTRUCTURE TRAINING PROGRAM (EVITP) – This 24-hour class addresses the requirements, regulations, products, and strategies which will enable contractors and electricians to master successful, expert, and professional customer relations, installations, and maintenance of Electric Vehicle (EV) and Plug-In Hybrid Electric Vehicle (PHEV) infrastructure. Graduates will gain thorough knowledge and practical application of all covered EV Infrastructure subjects, and this certification is recommended by vehicle manufacturers to perform these EV and PHEV installations.

ENERGY AUDIT SURVEY – This class will cover important methods of identifying and evaluating possible cost-saving energy conservation opportunities in your customer's place of business.

ENERGY STORAGE AND MICROGRID TRAINING AND CERTIFICATION (ESAMTAC) – ESAMTAC is an education/training program, and credential (future), that prepares electrical contractors and electricians for the safe and effective assembly, testing, commissioning, maintenance, repair, retrofitting, and decommissioning of energy storage and microgrid (ESM) systems. ESAMTAC consists of two courses and related credentials. The Primary course develops knowledge and skills with an emphasis on energy storage and microgrid *components*.

FIELD ESTIMATING – Introductory course prepared to assist people now engaged in field supervision, or who plan to be in the future. Students will learn the very basics to estimate and price electrical changes and additions to the original scope of work, including preparing takeoffs, using and adjusting labor units, material pricing, and computer estimating. Submittal and shop drawing analysis, change orders, back charges, effects of overtime on productivity, and effects of scheduling are also covered.

FIRE ALARM – This course covers the theory of Fire Alarm circuits concentrating on power-limited, non-power-limited and supervisory circuits with an emphasis on Article 760 of the NEC. Students will then learn the hands-on skills of properly connecting all fire alarm devices, fire alarm panels, and annunciators. Also introduces the student to programming addressable fire alarm equipment.

FIRE LIFE SAFETY TECHNICIAN LICENSE PREPARATION – This course is designed to prepare apprentice and journey-level workers to take and pass the State of California's Fire and Life Safety Technician licensing exam.

FIRST AID, CPR, AND AED – This class offers Medic Certification which is valid for two (2) years and offers invaluable life-saving skills useful for not only our working partners but our friends and family as well.

FIRST AID, CPR AND AED RENEWAL – Offers a two (2) year renewal of the nationally-recognized Medic Certifications. Pre-requisite: Valid Medic First Aid, CPR, and AED Certification.

FOA CERTIFIED FIBER OPTIC TECHNICIAN – Prepares students to take and pass the FOA's Certified Fiber Optic Technician (CFOT) exam. The CFOT exam is based on the knowledge, skills, and abilities deemed necessary for all technicians involved in the installation of fiber optic networks and is recommended for anyone involved in the design, and/or management of fiber optic communications systems. CFOTs have a general knowledge of fiber optics that can be applied to almost any application.

FOREMANSHIP CBA – This class is for those individuals who are now in supervision or plan to be. Topics cover safety, contracts, scheduling, estimating, stewardship, harassment, dispatch procedures and leadership skills.

GENERAL ELECTRICIAN LICENSE PREPARATION – This course is designed to prepare apprentice and journey-level workers to take and pass the State of California's General Electrician licensing exam.

GROUNDING – Covering both theory and techniques of proper grounding of main services, transformers, and branch circuits. Article 250 of the NEC is thoroughly examined.

HIGH VOLTAGE CABLE SPLICING – This very extensive comprehensive 44-week course educates the Journey-level worker on high-voltage theory, but concentrates on the hands-on skill of properly splicing, and terminating all of the different types of 5 and 15kv cables, insulations, and shielding. The wide assortment of termination and splice kits currently available are taught including heat shrink, cold shrink, gel and molded products. The entire process is covered from proper cable preparation to testing, fault locating and test instrument troubleshooting. Successful completion of this course prepares the journeyman for the National Cable Splicing Board Certification, and an Executive Board request for an upgrade of your IBEW classification.

INDUSTRIAL SKILLS ORIENTATION – This course provides an introduction to the skills needed to be successful in the industrial workplace. Topics include techniques to properly cut, thread, bend and install rigid conduit, and safety in industrial environments. Also included is coursework on the NEC with an emphasis on Articles of 500 through 505 which contain code requirements for electrical installations in hazardous locations.

INSTRUMENTATION LEVEL “1” – A theory course designed to thoroughly instruct calibration methods and techniques. Knowledge of flow, temperature, pressure and level monitoring is covered as well as a close look at the operation and fundamentals of process switches, indicators, transmitters, and recorders. Successful completion of this course and a passing grade of the EPRI Level 1 exam will earn the EPRI Level 1 Certification.

INSTRUMENTATION LEVEL “2” - This course emphasizes the lab work necessary to learn calibration wiring and testing necessary for a variety of process systems, and insure a safe start-up procedure. Troubleshooting techniques and maintenance knowledge are incorporated into this very hands-on class. Completion of this course prepares the student to take the EPRI Level 2 exam, and when satisfactorily completed will receive the full EPRI Certification which qualifies the holder to accept Instrumentation Technician requests from the Dispatch office. Pre-requisite: EPRI Level 1 Certification.

KNOTS AND RIGGING – Completion of this class will give the student new confidence in being able to safely rig, sling, and set medium to large distribution equipment into place. Must have skills for anyone on the single line crew.

LA QUALIFIED SAFETY PERSON – This class focuses on Cal OSHA safety requirements and emphasizes safety training for the electrical trade. Upon successful completion of this course, participants will be issued a Local #11 LA QSP certificate, and an OSHA 30 card with a Cal OSHA endorsement.

LEAD SAFETY FOR RENOVATION, REPAIR & PAINTING INITIAL – Required for all electricians who may disturb small amounts of lead in the course of their work. Provides training in recognizing lead, required regulations concerning possible contact, potential health effects, personal protection and methods of abatement. Successful completion of this class will earn a one-year certificate. Note: This class does not qualify or certify for lead abatement work.

MOTOR CONTROL ADVANCED – This course continues more complex and in-depth training in Motor Control applications with an emphasis on troubleshooting techniques. Pre-requisite: Motor Control Basics

MOTOR CONTROL BASICS – This course provides both theory and hands-on training on the basics of Motor Control including ladder diagrams, control components, motor starters, pilot lights and over-current protection.

NEC 2014 – Learn the very effective and proper use of the National Electrical Code book with numerous methods and short-cuts. All articles of the 2005 NEC are covered with an emphasis on the codes which frequently apply to our installations.

NFPA 70E – This course is intended to introduce NFPA 70E to workers exposed to the hazards associated with working with and around electrical distribution systems. While OSHA regulations specify what measures must be taken to protect employees from electrical hazards, NFPA 70E outlines the recommended electrical practices and procedures needed to comply with OSHA’s standards. This course will address what safety-related work practices and procedures electrical employees should understand to avoid electrical tragedies on the job.

OSHA 30 TO LAQSP – This is a short course designed to give the student the opportunity to ‘bridge’ their Federal OSHA 30 training certification and gain the Local 11/LA NECA LA QSP designation.

PHOTO-VOLTAIC INSTALLATION & DESIGN – This very comprehensive class teaching the very latest in the new “Green Technology” of Solar Power Production with a very intensive emphasis on hands-on skill training. Areas covered include site evaluation, system sizing, roof mounting methods, system installation, inverter wiring, operation, testing, monitoring, metering, and troubleshooting.

PHOTO-VOLTAIC CERTIFICATION TESTING – A review and test covering photo-voltaic installation and design. Successful passing of this exam earns Statewide Certification to allow working on these solar power generating systems. Pre-requisite: Photo-Voltaic Installation & Design.

QUALIFIED RIGGING & SIGNALLING – Learn the proper tying and application of many useful knots. Additionally, learn the proper rigging methods to safely lift, move and set electrical equipment, as well as the proper hand signals to use during this process.

REFINERY SAFETY ORIENTATION (RSO) – This 3 day training is provided by OSCA and beginning July 2018 is required to work in refinery job sites. The training is broken down into the following three areas:

- 1. Principles of Petroleum Refining (4 Hours)** - Students will explore the critical role refining plays in unleashing the potential of a barrel of crude oil and turning it into the specially formulated products that we rely on every day. These products include gasoline, agricultural chemicals, heating oil, plastics, and even prescription medicines. The training will also cover basic refining streams and unit configurations. Also covered will be hazard inherent to high hazard facilities and common emergency response processes. A section of the training will explain refining culture as it may differ from other industry sectors. An introduction to common refining terminology will be covered.
- 2. Refinery Safety Overview (RSO) – (8 Hours)** - Students will learn the basic safety principles associated with working in High Hazard Facilities. To include: Overview of Personal Requirements for Refineries Hazard Management and Risk tolerance Hazard Communication Emergency Action Plans Toxicology Personal Protective Equipment (PPE) for working in a refinery Respiratory Protection Hearing Conservation Energy Control (Lockout/Tagout) Confined Space Prevention of Heat Stress Refinery Safe Work Practices Refinery Process Overview Process Safety Management.
- 3. Safety as it Pertains to Crafts (8 Hours)** - Students will learn about examples of specific interdependencies and relationships of trades for work being performed in the field. Examples will include stacked work, dissimilar trades in direct proximity with each other, dissimilar risks associated with trade types (i.e., electrical energy, product energy, radiation, potential falling objects, etc.) job sequencing, and barricading.

SECURITY ACCESS/VIDEO SURVEILLANCE – This hands-on lab covers the installation, use, and maintenance of various security systems. Testing and troubleshooting of these systems are also included.

SERVICE & DISTRIBUTION – This class will provide the student with the skills and knowledge needed to successfully navigate the world of Services and Distribution. The student will have both formal classroom instruction, plus hands-on training on electrical service and distribution systems and proper application of NEC Article 230 as it relates to these installations. Students will learn how to calculate the primary and secondary current of transformers, separately derived systems, and how to size the primary and secondary conductors, the grounding electrode conductor, system bonding jumper, and the supply side bonding conductor. Also included is training on fully rated and series rated systems and how they relate to properly engineered Overcurrent Protective Systems.

SHADES OF HARASSMENT – Students taking this course will participate in real-life case studies and discuss if harassment occurred and, if so, how to respond. After completing this course, students will understand the enormous risk to which you are subjecting yourself if you are knowingly, or unknowingly the harasser and the enormous risk to which you are subjecting yourself and your company if you ignore signs of harassment, or if you treat a complaint lightly.

TELEPHONE CONNECT/STRUCTURED CABLE – Learn the proper methods to lay-out, terminate and interconnect to a telephone service provider. This hands-on lab emphasizes terminal station, multi-pair distribution and PBX station wiring using M-66 and 110 blocks and individual RJ-11 jacks. Proper color-coding and backboard lay-out methods are also included.

TRANSFORMERS – This course provides the student with a comprehensive knowledge of transformer types and their various applications. Interpretation of sizing, the theory of operation, proper handling and installation, calculations for feeders and overcurrent protection for both the primary and secondary sides are emphasized. NEC Article 450 is thoroughly reviewed along with those sections of Article 250 which apply.

TRANSPORTATION SKILL IMPROVEMENT – This course covers the very basics of the installation methods and requirements of the intelligent transportation systems industry. This class is designed for those who desire an introduction to this skilled industry, or to those who want to refresh their existing skills.

VOICE/DATA/VIDEO TECHNICIAN LICENSE PREPARATION - This course is designed to prepare apprentice and journey-level workers to take and pass the State of California's Voice/Data/Video Technician licensing exam.