# 2026 16-Hour Code Bundle

## Lightwave Learning

*Electrical Continuing Education Outline*

16 Hours | 16 Credits

This curriculum covers the 204 most significant code changes between the 2023 and 2026 National Electrical Code. Each lesson is structured around one NEC section, comparing the old and new language side by side, explaining the reasoning behind the change, and testing practical field application. Lessons are arranged in ascending NEC section order, beginning with the foundational articles that govern scope, definitions, and general requirements before moving into the technical chapters.

**Lesson 1 90.3 — Code Arrangement [REVISED]**

Students will learn how the 2026 NEC reorganized its internal structure, including renumbered parts and relocated articles, and how the new arrangement affects navigating the code in the field.

**Lesson 2 100 — Definition — Cable Tie [NEW]**

Students will learn the new 2026 NEC formal definition of a cable tie and how that definition establishes listing and installation requirements for securing wiring methods.

**Lesson 3 100 — Definition — Electrical Self-Propelled Vehicle Supply Equipment (ESVSE) [NEW]**

Students will learn the new 2026 NEC definition distinguishing electrical self-propelled vehicle supply equipment from traditional EV charging equipment and what that means for Article 625 installations.

**Lesson 4 100 — Definition — Energy Management System (EMS) [REVISED]** Students will learn how the revised 2026 NEC definition of an Energy Management System clarifies what qualifies as an EMS and how that affects load calculation and panelboard sizing.

**Lesson 5 100 — Definition — Ground-Fault Circuit Interrupter, Class A GFCI [REVISED]**

Students will learn how the 2026 NEC revised the Class A GFCI definition, including any updated trip-level thresholds, and what those changes mean for device selection and installation.

**Lesson 6 100 — Definition — Ground-Fault Circuit Interrupter, Special Purpose, Class E (Class E SPGFCI) [NEW]**

Students will learn the new 2026 NEC definition of the Class E SPGFCI, what distinguishes it from a Class A GFCI, and which applications now require this new device class.

**Lesson 7 100 — Definition — Line-To-Neutral [NEW]**

Students will learn the new 2026 NEC definition of line-to-neutral and how having a formal defined term affects voltage calculations and equipment selection across multiple articles.

**Lesson 8 100 — Definition — Pool [REVISED]**

Students will learn how the revised 2026 NEC definition of a pool expands or clarifies which water features trigger the wiring requirements in Article 680.

**Lesson 9 110.3(B) — Installation and Use [REVISED]**

Students will learn how the 2026 NEC revised the requirement for installing and using equipment in accordance with its listing and labeling, including any new field verification obligations.

**Lesson 10 110.16 — Arc-Flash Hazard Marking [REVISED]**

Students will learn what changed in the 2026 NEC arc-flash hazard marking requirements and how updated labeling rules affect service work, panel installations, and inspection approvals.

**Lesson 11 110.26(A)(1) — Depth of Working Space [REVISED]**

Students will learn how the 2026 NEC revised the required depth of working space in front of electrical equipment and how those changes affect panel room layout and equipment placement.

**Lesson 12 110.29 — In Sight From — Under 1000V [REVISED]**

Students will learn how the 2026 NEC revised the application of the 'in sight from' rule for equipment under 1000V and how that affects disconnecting means placement decisions.

**Lesson 13 120.1 — Calculations [RELOCATED]**

Students will learn that the load calculation rules previously located elsewhere were relocated to Article 120 in the 2026 NEC and how to find and apply them under the new code structure.

**Lesson 14 120.5(E) — Percent Multipliers [NEW]**

Students will learn the new 2026 NEC percent multiplier provisions added to Article 120 and how to apply them when calculating branch circuit, feeder, and service loads.

**Lesson 15 120.13 — Dwelling Units — Branch Circuit Loads [NEW]**

Students will learn the new 2026 NEC section establishing specific branch circuit load calculation rules for dwelling units, consolidating requirements previously scattered across the code.

**Lesson 16 120.130 — Calculated Load — Recreational Parks [RELOCATED]** Students will learn that the calculated load requirements for recreational vehicle parks were relocated to Article 120 in the 2026 NEC and how to apply them under the new structure.

**Lesson 17 130.2 — Listing Requirements [NEW]**

Students will learn the new 2026 NEC listing requirements added to Article 130 and how they affect equipment selection and compliance for the applications covered by that article.

**Lesson 18 200.7 — Means of Identifying Grounded Conductors [REVISED]** Students will learn how the 2026 NEC revised the permitted methods for identifying grounded (neutral) conductors, including any new color, marking, or tagging requirements.

**Lesson 19 210.8(A) — GFCI Protection — Dwelling Units [REVISED]**

Students will learn which specific locations were added, removed, or clarified for GFCI protection in dwelling units under the 2026 NEC and how those changes affect residential rough-in and service work.

**Lesson 20 210.12(B) — Arc-Fault Circuit-Interrupter Protection — Dwelling Units [REVISED]**

Students will learn how the 2026 NEC revised AFCI protection requirements for dwelling unit branch circuits, including changes to permitted protection methods and covered locations.

**Lesson 21 210.70 — Lighting Outlets Required [REVISED]**

Students will learn how the 2026 NEC revised the requirements for mandatory lighting outlet locations in dwelling units, including any new rooms or areas added to the list.

**Lesson 22 225.41(A) — Outside Disconnecting Means — Location [REVISED]**
Students will learn the 2026 NEC requirements for the location of outside branch circuit and feeder disconnecting means, including revised placement and accessibility rules.

**Lesson 23 230.2(B) — Number of Services — Listed or Field Evaluated [NEW]** Students will learn the new 2026 NEC requirement for service equipment to be either listed or field evaluated and how that affects equipment approval on service installations.

**Lesson 24 230.67(A) — Surge-Protective Device [REVISED]**
Students will learn how the 2026 NEC revised the surge-protective device requirement at dwelling unit services, including changes to device type, location, or rating.

**Lesson 25 230.95 — Ground-Fault Protection of Equipment [REVISED]** Students will learn how the 2026 NEC revised GFPE requirements for solidly grounded wye services, including any changes to thresholds, settings, or testing requirements.

**Lesson 26 240.13 — Ground-Fault Protection of Equipment (GFPE) [REVISED]** Students will learn how the 2026 NEC revised GFPE requirements in Article 240 and how those changes interact with service and feeder protection on commercial installations.

**Lesson 27 240.24(E) — Location of Overcurrent Devices — Not in Bathrooms [REVISED]**
Students will learn how the 2026 NEC revised the restriction on locating overcurrent protective devices in bathrooms and similar spaces, including any updated exceptions.

**Lesson 28 242.3 — Reconditioned Equipment [REVISED]**
Students will learn how the 2026 NEC revised the rules for using reconditioned overvoltage protection equipment, including updated listing, marking, and documentation requirements.

**Lesson 29 245.2 — Listing Requirements [NEW]**
Students will learn the new 2026 NEC listing requirements for overvoltage protection equipment in Article 245 and how they affect device selection.

**Lesson 30 250.64(G) — Grounding Electrode Conductor — Enclosures with Openings [REVISED]**

Students will learn the 2026 NEC requirements for routing grounding electrode conductors through enclosures that have ventilation, mounting, or drainage openings and how to maintain conductor continuity.

**Lesson 31 250.94(A) — Intersystem Bonding Termination Device [REVISED]** Students will learn how the 2026 NEC revised the requirements for intersystem bonding termination devices, including updated location, capacity, and accessibility rules affecting communications and CATV installations.

**Lesson 32 265.18 — Rating [NEW]**

Students will learn the new 2026 NEC rating requirements for induction and dielectric heating equipment in Article 265 and how those ratings affect equipment selection and installation.

**Lesson 33 Article 270 — Grounding and Bonding of Systems Over 1000V ac / 1500V dc [NEW]**

Students will learn that the 2026 NEC introduced a new Article 270 consolidating grounding and bonding requirements for high-voltage systems and what that means for installations exceeding 1000V ac or 1500V dc.

**Lesson 34 300.24 — Bends [NEW]**

Students will learn the new 2026 NEC requirements for bends in raceways and cables, including radius minimums and restrictions added to prevent conductor damage during and after installation.

**Lesson 35 334.12 — Nonmetallic-Sheathed Cable — Uses Not Permitted [REVISED]** Students will learn how the 2026 NEC revised the list of locations and applications where NM cable (Romex) is prohibited, including any new restrictions affecting residential and light commercial work.

**Lesson 36 342.42 — IMC Couplings and Connectors [REVISED]**

Students will learn the 2026 NEC requirements for couplings and connectors used with intermediate metal conduit, including any changes to tightening requirements, listing standards, or field assembly rules.

**Lesson 37 410.191 — Identification of Germicidal Luminaires [NEW]** Students will learn the 2026 NEC requirements for identifying germicidal (UV-C) luminaires to prevent accidental human exposure and ensure proper hazard awareness during installation and maintenance.

**Lesson 38 411.4 — Low-Voltage Lighting Systems [REVISED]**

Students will learn the 2026 NEC installation requirements for low-voltage lighting systems, including any changes to power supply ratings, conductor sizing, or protection provisions.

**Lesson 39 440.11 — Air-Conditioning and Refrigerating Equipment — General [REVISED]**

Students will learn how the 2026 NEC revised the general scope and application rules of Article 440 and how those changes affect HVAC disconnect sizing and branch circuit requirements.

**Lesson 40 445.11 — Generator Markings [REVISED]**

Students will learn the 2026 NEC marking requirements for generators, including any new nameplate data, output rating, or hazard warning label requirements for equipment installed in the field.

**Lesson 41 517.28 — Health Care Facilities — Signs [NEW]**

Students will learn the new 2026 NEC requirement for hazard warning signs in health care facilities and what those signage responsibilities mean for electricians during installation and inspection.

**Lesson 42 547.23 — Agricultural Buildings — Wet Locations [REVISED]** Students will learn the 2026 NEC requirements for wiring methods and equipment in wet locations within agricultural buildings and how updated rules affect livestock facility installations.

**Lesson 43 555.13 — Marinas — Bonding of Non-Current-Carrying Metal Parts [REVISED]**

Students will learn the 2026 NEC bonding requirements for non-current-carrying metal parts in marinas and boatyards and how updated rules affect dock wiring and shore power installations.

**Lesson 44 604.100 — Manufactured Wiring Systems — Construction [REVISED]** Students will learn how the 2026 NEC revised the construction requirements for manufactured wiring systems, including updated assembly, listing, and field modification rules.

**Lesson 45 625.4 — EV Infrastructure — Qualified Person [NEW]**

Students will learn the new 2026 NEC requirement defining who qualifies as a qualified person for EVSE work and what training or knowledge standards now apply to electric vehicle charging installations.

**Lesson 46 625.42(B) — EVSE with Adjustable Settings [REVISED]**

Students will learn how the 2026 NEC revised the requirements for EV supply equipment with adjustable current settings, including updated Energy Management System integration and load control provisions.

**Lesson 47 682.33 — Natural and Artificially Made Bodies of Water — Equipotential Planes and Bonding [REVISED]**

Students will learn how the 2026 NEC revised equipotential plane and bonding requirements for natural and artificial bodies of water and how those changes affect dock, pier, and waterfront installations.

**Lesson 48 706.7(A) — Energy Storage Systems — Commissioning [REVISED]** Students will learn how the 2026 NEC revised the commissioning requirements for energy storage systems and what documentation, testing, and verification steps are now required before placing a system in service.

**Lesson 49 720.1 — Circuits and Equipment Under 50 Volts — Scope [NEW]** Students will learn the new or revised scope of Article 720 for circuits and equipment operating at not more than 50 volts and which low-voltage installations are now covered or excluded.

**Lesson 50 Article 750 — Grounding and Bonding of Limited-Energy Systems [NEW]**

Students will learn that the 2026 NEC introduced a new Article 750 establishing grounding and bonding requirements specifically for limited-energy systems and how those rules affect low-voltage and communications installations.

**Lesson 51 100 — Accessible, Readily (Readily Accessible) [REVISED]**

Students will learn that "Readily Accessible" received editorial refinements in the 2026 NEC — correcting "inspections" to "inspection" and removing archaic phrasing — with no change to installation requirements.

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**Lesson 52 100 — Cable Tie Fixing Device [NEW]**

Students will learn the 2026 NEC's new definition of "Cable Tie Fixing Device," which distinguishes cable management-only ties (Types 1, 11, 2, 21) from structurally rated ties approved to support cable, flexible conduit, and flexible tubing (Types 2S and 21S).

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**Lesson 53 100 — Electric Self-Propelled Vehicle (ESV) [NEW]**

Students will learn the 2026 NEC's new definition of "Electric Self-Propelled Vehicle (ESV)" covering electrically powered vehicles and vessels outside the EV definition — such as golf carts, farm equipment, and boats — and how this definition anchors the new Article 624 charging requirements.

**Lesson 54 100 — Generator (Generator Set) [REVISED]**

Students will learn that the 2026 NEC removed "and/or inverter" from the Article 100 Generator definition, correcting a technical inaccuracy and clarifying that generators and inverter-based systems are distinct equipment types governed by separate Code articles.

**Lesson 55 100 — Ground-Fault Circuit Interrupter, Special Purpose, Class C (Class C SPGFCI) [NEW]**

Students will learn the 2026 NEC's new definition of the Class C Special Purpose GFCI, part of a broader set of SPGFCI classifications added to Article 100, and how it addresses personnel protection needs on circuits up to 300 volts ac to ground where standard Class A GFCIs are not appropriate.

**Lesson 56 100 — Line-to-Line [NEW]**

Students will learn the new 2026 NEC definition of "Line-to-Line" as an electrical reference between two current-carrying conductors other than a neutral, and how this terminology applies to equipment ratings and voltage measurements in the field.

**Lesson 57 100 — Microgrid [REVISED]**

Students will learn how the 2026 NEC simplified the "Microgrid" definition from a 47-word operational description to a concise two-part test based on system composition and independence from the utility.

**Lesson 58 100 — Transformer Secondary Conductor [NEW]**

Students will learn the 2026 NEC's new definition of "Transformer Secondary Conductor" and how it directs overcurrent protection to 240.21(C) rather than feeder rules for conductors originating at transformer secondary winding terminals.

**Lesson 59 110.14 — Electrical Connections [REVISED]**

Students will learn how the 2026 NEC replaced "suitable" with "identified" throughout Section 110.14 and added listing requirements for connectors serving finely stranded conductors, clarifying which connection hardware must be used for each conductor type.

**Lesson 60 110.17 — Servicing of Equipment [REVISED]**

Students will learn that the 2026 NEC removed "and Maintenance" from Section 110.17's title and body and deleted the NFPA 70B informational note, clarifying that Article 110 governs installation requirements only — not ongoing maintenance obligations.

**Lesson 61 110.26(C)(2) — Large Equipment [REVISED]**

Students will learn that the 2026 NEC expanded the dual-egress requirement in 110.26(C)(2) to include feeder disconnect assemblies under 225.33(A), in addition to service disconnects, when the 1200 A and 6-foot combined width thresholds are both met.

**Lesson 62 110.40 — Electrical Connections [REVISED]**

Students will learn how the 2026 NEC revised Section 110.40 electrical connection requirements for systems over 1000 volts, including updated termination standards and how those changes affect medium-voltage installation and inspection practices.

**Lesson 63 120.5(C) — Floor Area [RELOCATED]**

Students will learn that detached garages were explicitly added as a floor area exclusion in 2026 NEC 120.5(C), formerly 220.5(C), eliminating ambiguity about accessory structures in residential service and feeder load calculations.

**Lesson 64 120.6 — Noncoincident Loads [RELOCATED]**

Students will learn that noncoincident load rules were relocated from Section 220.60 to new Section 120.6 in the 2026 NEC and restructured into two subsections distinguishing usage-based and equipment-based load reduction for feeders and services.

**Lesson 65 120.41 — Dwelling Units, Minimum Unit Load [RELOCATED]**

Students will learn that the 2026 NEC reduced the general lighting unit load for dwelling unit service and feeder calculations from 3 VA/ft² to 2 VA/ft², relocated from Section 220.12, while branch circuit minimum counts remain governed by Section 120.13.

**Lesson 66 130.60 — Conductors and Equipment [NEW]**

Students will learn the 2026 NEC's new Section 130.60 requirements for Power Control System conductors and equipment, including the prohibition on using OCPDs as the sole protection for PCS conductors in non-branch-circuit applications.

**Lesson 67 206.4(A) — Sizes and Use [RELOCATED]**

Students will learn that non-power-limited remote-control and signaling circuit conductor size rules were relocated from 300.26(C)(1) to new Section 206.4(A) in the 2026 NEC, with technical revisions including expanded conductor types, stronger mandatory language, and a new ampacity calculation requirement.

**Lesson 68 210.8(B) — GFCI Protection, Other Than Dwelling Units [REVISED]**

Students will learn that the 2026 NEC split item (8) "Indoor damp or wet locations" into two separate items and added aquatic vessel locations, shifting all subsequent item numbers and expanding GFCI coverage in commercial and industrial work.

**Lesson 69 210.12(E) — Branch Circuit Wiring Extensions, Modifications, or Replacements [REVISED]**

Students will learn that "or switch outlet" was added to 210.12(E)(2) in the 2026 NEC, expanding the permitted installation locations for a listed outlet branch-circuit-type AFCI device when extending, modifying, or replacing existing branch-circuit wiring.

**Lesson 70 210.70(A)(1) — Habitable Rooms, Kitchens, Laundry Areas, and Bathrooms [REVISED]**

Students will learn that "wall switch or" was added throughout 210.70(A)(1) in the 2026 NEC and that new Exception No. 3 permits the lighting outlet and its switch to be located outside laundry areas housed within a closet or compact enclosure.

**Lesson 71 225.18 — Clearance for Overhead Conductors and Cables [REVISED]**

Students will learn that 225.18 received a single editorial correction in the 2026 NEC — "and accessible" changed to "and is accessible" in item (1) — with no changes to vertical clearance values or overhead conductor installation requirements.

**Lesson 72 225.41(A)(1) — Emergency Disconnect — Location [REVISED]**

Students will learn how the 2026 NEC reformatted 225.41(A)(1) into a numbered list structure, added a cross-reference to Section 110.29, and introduced an exception for duplicate disconnects that are readily accessible and plainly visible from each other.

**Lesson 73 230.68 — Meter Sockets [RELOCATED]**

Students will learn that meter socket requirements were relocated from 230.66(B) to standalone Section 230.68 in the 2026 NEC, removing the listing mandate, eliminating the utility exception, and adding a new exception for fire pump circuits.

**Lesson 74 230.70(B) — Service Disconnect Marking [REVISED]**

Students will learn how the 2026 NEC replaced the general marking language in 230.70(B) with specific mandated label text and required color specifications, including red background and white lettering for emergency disconnect labels on one- and two-family dwellings.

**Lesson 75 250.4(A)(5) — Effective Ground-Fault Current Paths [REVISED]**

Students will learn that 250.4(A)(5) was restructured from a single paragraph into three lettered sub-items and renamed from "Path" to "Paths" in the 2026 NEC, with no technical changes to ground-fault current path design requirements.

**Lesson 76 250.53(A)(4) — Rod and Pipe Electrodes [REVISED]**

Students will learn how the 2026 NEC restructured 250.53(A)(4) into lettered subdivisions, explicitly added "vertically" as the required installation method for rod and pipe electrodes, and formalized the angled and horizontal burial exceptions into titled subdivision language.

**Lesson 77 250.94(A) — Intersystem Bonding Termination Devices [REVISED]**

Students will learn that the 2026 NEC added the building or structure itself as a permitted IBT mounting location when a 6 AWG copper GEC is present, and expanded the listing requirement to include equipment listed specifically as communications grounding and bonding equipment.

**Lesson 78 300.6(E) — Wiring Methods and Materials in or Under Roof Decking [REVISED]**

Students will learn how the 2026 NEC revised 300.6(E) to extend protection requirements to all roof decking types by replacing the "metal-corrugated" limitation and "cables, raceways, or boxes" language with broader terms, and added a new concrete-encasement exception.

**Lesson 79 310.5(A) — Minimum Size of Conductors [RELOCATED]**

Students will learn that minimum conductor size rules were relocated from 310.3(A) to 310.5(A) in the 2026 NEC and that copper-clad aluminum now carries its own separate minimum of 14 AWG, distinct from the 12 AWG minimum that applies to aluminum.

**Lesson 80 330.30(A) — Securing and Supporting — General [REVISED]**

Students will learn that the 2026 NEC added cable cleats as an explicitly named securing method, required staples to be listed, and expanded the support sentence to include connectors alongside fittings in Section 330.30(A) for Type MC cable installations.

**Lesson 81 340.104 — Conductors [REVISED]**

Students will learn that the 2026 NEC gave copper-clad aluminum conductors in Type UF cable their own 14 AWG minimum size, separating them from the 12 AWG aluminum minimum that previously applied to both materials under a shared table entry.

**Lesson 82 393.14(A) — General Requirements [REVISED]**

Students will learn that the 2026 NEC replaced the "neat and workmanlike manner" language in 393.14(A) with a binding requirement that low-voltage suspended ceiling power distribution system components be installed by qualified persons, a defined Article 100 term.

**Lesson 83 430.3 — Reconditioned Equipment [RELOCATED]**

Students will learn that reconditioned motor requirements were relocated from 430.2 to 430.3 and retitled "Reconditioned Equipment" in the 2026 NEC, with the hazardous location sentence removed and language aligned with NEC Style Manual 2.2.1.

**Lesson 84 440.15 — Split-System Indoor Unit Identification [NEW]**

Students will learn that the 2026 NEC added Section 440.15 requiring outdoor disconnects for split-system HVAC equipment, in other than one- and two-family dwellings, to be marked with the location of all indoor units they supply.

**Lesson 85 480.1 — Scope [REVISED]**

Students will learn that the 2026 NEC removed "standby" from Article 480's scope, expanding coverage to all stationary battery systems exceeding 1 kWh that are not listed as energy storage systems under Article 706, and added a new informational note for calculating kWh from nameplate data.

**Lesson 86 500.5(D)(1)(a) & (b) — Class III, Division 1, Combustible Fibers/Flyings [REVISED]**

Students will learn that the 2026 NEC split 500.5(D)(1) into separate subparagraphs for nonmetal and metal fibers, with combustible metal fibers/flyings now explicitly classified as Class II, Division 1, Group E rather than Class III.

**Lesson 87 511.10(B) — Electric Vehicle Power Transfer Systems [REVISED]**

Students will learn how Section 511.10(B) was retitled from "Electric Vehicle Charging Equipment" to "Electric Vehicle Power Transfer Systems" in the 2026 NEC, adopted Article 625 defined terms, and added a new identification requirement for overhead cable suspension hardware.

**Lesson 88 517.15 — Multiwire Branch Circuits [NEW]**

Students will learn that the 2026 NEC added Section 517.15 prohibiting life safety lighting and power circuits in healthcare facilities from being part of a multiwire branch circuit, requiring each such circuit to have its own dedicated neutral.

**Lesson 89 525.11 — Generators [NEW]**

Students will learn the 2026 NEC's new requirements for generators supplying power at carnivals, circuses, fairs, and similar events, including listing and installation requirements designed to protect the public and workers at temporary electrical installations.

**Lesson 90 525.31 — Equipment Grounding [REVISED]**

Students will learn how the 2026 NEC revised Section 525.31 equipment grounding requirements for carnivals, circuses, fairs, and similar events, and how those changes affect grounding conductor sizing and connection methods at temporary power installations.

**Lesson 91 545.2 — Listing Requirements [NEW]**

Students will learn that the 2026 NEC elevated the wiring method listing requirement for manufactured buildings into standalone Section 545.2, shifting from permissive to mandatory language and requiring both the wiring system and its fittings to be listed.

**Lesson 92 555.14 — Equipotential Planes and Bonding of Equipotential Planes [REVISED]**

Students will learn how the 2026 NEC restructured 555.14 to define four specific construction methods for equipotential planes at marina service equipment, triggered when system voltage exceeds 250V to ground or equipment is within 3 m (10 ft) of water.

**Lesson 93 620.16(C) — Available Fault Current Field Marking [NEW]**

Students will learn that the 2026 NEC added Section 620.16(C) requiring elevator control panels to be field-marked with available fault current and calculation date, and that the marking must be updated whenever upstream electrical modifications affect available fault current at the panel.

**Lesson 94 625.41 — Continuous Loads [REVISED]**

Students will learn that the 2026 NEC retitled Section 625.41 from "Overcurrent Protection" to "Continuous Loads" and explicitly codified that all EVSE and WPTE — including bidirectional devices — are continuous loads requiring 125% conductor and OCPD sizing.

**Lesson 95 625.43 — Disconnecting Means [NEW]**

Students will learn the 2026 NEC's new Section 625.43 requirements for disconnecting means on electric vehicle power transfer equipment, including where disconnects must be located and how those requirements affect EVSE installation planning and inspection.

**Lesson 96 680.26(B)(2) — Perimeter Surfaces [REVISED]**

Students will learn that the 2026 NEC expanded the below-water equipotential bonding zone in 680.26(B)(2) from 2 ft to 3 ft, added copper-clad steel as a permitted conductor material, and extended the grid listing compliance deadline to January 1, 2029.

**Lesson 97 700.10(D)(2) — Feeder-Circuit Wiring [REVISED]**

Students will learn that the 2026 NEC restructured the concrete encasement option for emergency system feeders into two distinct paths — 2 inches with PE-documented fire rating or 5 inches measured from all cable surfaces — and added a new exception for underground installations.

**Lesson 98 700.10(D)(2)(5) — Feeder-Circuit Wiring, Concrete Encasement [REVISED]**

Students will learn the specific revision to 700.10(D)(2)(5) that increased the minimum concrete encasement for emergency feeders from 2 inches to 5 inches measured from every surface of the cable or raceway, based on fire safety research documenting the limitations of 2-inch cover under extended fire exposure.

**Lesson 99 720.11 — Limited-Energy System Raceways in Wet Locations Above Grade [NEW]**

Students will learn the 2026 NEC's new Section 720.11 requirements for raceways used in limited-energy system installations at wet locations above grade, including which raceway types are permitted and how this section affects low-voltage wiring in outdoor and exposed-wet environments.

**Lesson 100 800.1 — Scope [REVISED]**

Students will learn that the 2026 NEC narrowed Article 800's scope to communications wires and cables outside and entering buildings, removing the umbrella language that previously made Article 800 the default reference for all Chapter 8 communications work.

**Lesson 101 Article 100 — Conductor, Grounding Electrode [RELOCATED]**

Students will learn that the 2026 NEC renamed the "Grounding Electrode Bonding Jumper" to "Bonding Conductor, Grounding Electrode" and formally added it as a standalone Article 100 defined term, replacing its prior use as an informal cross-reference in Article 250.

**Lesson 102 Article 100 — (Countertop) [REVISED]**

Students will learn that the 2026 NEC expanded the Counter (Countertop) definition to include beverage preparation and serving surfaces, broadening which surfaces trigger countertop-specific GFCI requirements for inspection and installation.

**Lesson 103 Article 100 — Self-Propelled Vehicle Power Export Equipment (ESVPE) [NEW]**

Students will learn the 2026 NEC's new definition of ESVPE and how it distinguishes power export equipment for off-road industrial vehicles under Article 624 from highway-type EV equipment governed by Article 625.

**Lesson 104 Article 100 — Terminals [NEW]**

Students will learn the 2026 NEC's new defined term "Generator Terminals" and how it establishes a code-defined output connection point used throughout Article 445 for conductor sizing, protection, and disconnect requirements.

**Lesson 105 Article 100 — Line-To-Ground [NEW]**

Students will learn that the 2026 NEC formally defines "Line-To-Ground" for the first time in Article 100, specifying that it is a reference between a current-carrying conductor other than a neutral and an equipment grounding conductor, grounded equipment, or ground.

**Lesson 106 Article 100 — Protective Device (OCPD) [REVISED]**

Students will learn that the 2026 NEC replaced the "Branch-Circuit Overcurrent Protective Device" definition with the broader "OCPD" and how the new modifier framework (branch, feeder, service) applies across all levels of the electrical system.

**Lesson 107 110.15 — High-Leg Marking [REVISED]**

Students will learn that the 2026 NEC requires orange visibility to be achieved specifically at all splices and terminations on high-leg conductors, not just somewhere along the conductor's length, and how this affects field marking practices.

**Lesson 108 110.26 — Spaces About Electrical Equipment [REVISED]**

Students will learn the multiple 2026 NEC changes to working space requirements, including expanded DC voltage ranges in Table 110.26(A)(1), a new 90-degree door qualifier, and a new suspended ceiling provision in 110.26(E)(1)(d).

**Lesson 109 110.29 — In Sight From (Within Sight From, Within Sight) [REVISED]**

Students will learn that the 2026 NEC expanded the "in sight from" definition to include buildings and structures as valid reference points — not just equipment — and how this affects disconnecting means evaluations in the field.

**Lesson 110 120.1 — Scope [RELOCATED]**

Students will learn that load calculation requirements moved from Article 220 (Chapter 2) to Article 120 (Chapter 1) in the 2026 NEC, that a new Part VIII for recreational vehicle parks was added, and where to find load calculation rules under the new code structure.

**Lesson 111 120.5(D) — Direct-Current (dc) Loads [NEW]**

Students will learn that the 2026 NEC introduced Section 120.5(D) establishing that volt-amperes equal watts for dc equipment load calculations, providing a code basis for calculating dc loads within Article 120 that did not previously exist.

**Lesson 112 120.83 — Existing Dwelling Unit [RELOCATED]**

Students will learn that the Optional Calculation for existing dwelling units was relocated from Section 220.83 to Section 120.83 in the 2026 NEC and revised to include a unified Table 120.83, a reduced 2 VA/ft² lighting load based on LED technology, and updated EVSE demand factors.

**Lesson 113 120.111 — Patient Care–Related Electrical Equipment [NEW]**

Students will learn that the 2026 NEC introduced Section 120.111 allowing demand factor reductions for patient care branch circuits in health care facilities and how this new allowance affects feeder and service sizing for clinical electrical systems.

**Lesson 114 130.80 — Marking and Documentation [RELOCATED]**

Students will learn that the marking, documentation, and directory requirements for Power Control Systems were moved from Article 750 (Chapter 7) to Article 130 (Chapter 1) and restructured into three subdivisions with a new mandatory documentation requirement for qualified persons.

**Lesson 115 210.8 — Ground-Fault Circuit-Interrupter Protection for Personnel [REVISED]**

Students will learn that the 2026 NEC elevated the rooftop receptacle accessibility exception to the parent text of 210.8, making it apply across all occupancy types, and that a new Informational Note was added for GFCIs used with high-frequency leakage loads.

**Lesson 116 210.13 — Ground-Fault Protection of Equipment [REVISED]**

Students will learn how the 2026 NEC restructured 210.13 to add a new subdivision (B) extending ground-fault protection of equipment requirements to solidly grounded dc branch circuits rated 1000 amperes or more above 150 volts to ground and up to 1500 volts line-to-line.

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**Lesson 117 210.22 — Permissible Loads, Individual Branch Circuits [REVISED]**

Students will learn that the 2026 NEC added a new Exception prohibiting 10-ampere individual branch circuits from supplying receptacle outlets, closing an interpretive gap between 210.22 and 210.23 that previously allowed undersized circuits to serve receptacles.

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**Lesson 118 210.52(A)(2) — Wall Space [REVISED]**

Students will learn that the 2026 NEC simplified the wall space definition by excluding all fixed cabinets from receptacle spacing measurements regardless of whether they have a countertop, eliminating ambiguity that previously caused inconsistent inspections.

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**Lesson 119 210.63(B) — Other Electrical Equipment [REVISED]**

Students will learn that the 2026 NEC removed the restriction against connecting the maintenance receptacle to the load side of the disconnecting means for equipment requiring dedicated spaces and consolidated the rule into a single paragraph covering all listed equipment types.

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**Lesson 120 210.70(C) — All Occupancies [REVISED]**

Students will learn that the 2026 NEC added Item (3) prohibiting automatic lighting controls as the sole means of illumination in attics, underfloor spaces, and utility rooms unless a manual override is provided, and that this restriction does not apply to basements.

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**Lesson 121 225.31 — Disconnecting Means [REVISED]**

Students will learn how the 2026 NEC revised 225.31 to reference 225.41 for emergency disconnects at detached structures, restructured the location requirements under (A) and (B) with a new 110.29 cross-reference, and clarified that compliance with 225.41 satisfies the general disconnect requirement.

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**Lesson 122 230.2(A) — Listed Equipment [NEW]**

Students will learn that the 2026 NEC created a new consolidated listing section at 230.2(A) pulling requirements from three predecessor sections, and that absence of voltage testers (AVTs) permanently mounted on the line side are a genuinely new item requiring a listed device.

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**Lesson 123 230.23(A) — General [REVISED]**

Students will learn that the 2026 NEC simplified the service conductor ampacity requirement in 230.23(A), deleted the mechanical strength clause, and updated the load calculation cross-reference from Article 220 to Article 120 with a new Informational Note.

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**Lesson 124 230.62(C) — Barriers [REVISED]**

Students will learn that the 2026 NEC added "identified" before barriers in 230.62(C), requiring barriers to be listed or manufacturer-designated rather than improvised, and added "energized and" to clarify that the hazard addressed is energized-and-uninsulated service busbars and terminals.

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**Lesson 125 230.70(A)(1) — & (B)(2) Residential Disconnect Location & Emergency Marking [REVISED]**

Students will learn that the 2026 NEC now requires the service disconnect for one- and two-family dwellings to be located on the exterior of the building, and that all service disconnects must be marked "SERVICE DISCONNECT" in red letters on the outside front of the enclosure.

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**Lesson 126 230.70(D) — Identification of Other Source Disconnects [NEW]**

Students will learn that the 2026 NEC added a new requirement for a permanent plaque or directory at the service disconnect identifying the location of all other energy source disconnects not located adjacent to it, directly affecting installations with generators, solar, and battery storage.

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**Lesson 127 230.82 — Equipment Connected to the Supply Side of Service Disconnect [REVISED]**

Students will learn how the 2026 NEC reorganized the supply-side equipment list into individually numbered items, removed voltage rating qualifiers from metering equipment items, and added permanently mounted absence of voltage testers (AVTs) as a new permitted item (12) requiring line-side labeling.

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**Lesson 128 240.7 — Overcurrent Protective Devices [NEW]**

Students will learn that the 2026 NEC introduced Section 240.7 as a new consolidated list of six recognized OCPD types permitted for branch circuit, feeder, and service protection, eliminating the need to piece together acceptable devices from multiple locations in the code.

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**Lesson 129 240.21(C) — Transformer Secondary Conductors [REVISED]**

Students will learn how the 2026 NEC restructured the transformer secondary conductor tap rules in 240.21(C) by adding a defined term and reorganizing conditions into labeled subdivisions, improving clarity for panelboard and transformer installation applications.

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**Lesson 130 250.8 — Connection of Grounding and Bonding Equipment [REVISED]**

Students will learn that the 2026 NEC added "grounding and bonding terminations" to the scope of 250.8(A), explicitly requiring that the eight approved connection methods apply to termination points as well as conductors and jumpers throughout the grounding system.

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**Lesson 131 250.64(C) — Continuous [REVISED]**

Students will learn that the 2026 NEC added a third permitted method for splicing grounding electrode conductors — listed bonding equipment at accessible locations — giving installers a mechanical connector option that was prohibited under the 2023 edition.

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**Lesson 132 300.7(D)(3) — Service Conductors and Raceways [REVISED]**

Students will learn that the 2026 NEC replaced the broad term "underground" with "direct buried service conductors and raceways containing service conductors," clarifying that warning ribbon is required for raceway installations — not just direct-buried conductors.

**Lesson 133 310.15(E) — Neutral Conductor [REVISED]**

Students will learn how the 2026 NEC restructured the neutral conductor current-carrying rules into two named subdivisions and explicitly added 2-wire circuits as a current-carrying condition, improving clarity for conductor bundling and ampacity derating decisions.

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**Lesson 134 334.2 — Listing Requirements [RELOCATED]**

Students will learn that the 2026 NEC relocated and expanded the NM/NMC listing requirement from 334.6 to 334.2, adding cable ties, staples, straps, and hangers as explicitly required listed items — a change that affects what support hardware is permissible on residential rough-in work.

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**Lesson 135 406.26 — Tamper-Resistant Receptacles [RELOCATED]**

Students will learn that the 2026 NEC relocated tamper-resistant receptacle requirements from 406.12 to 406.26, added park and recreation areas as a new required location under Item (11), and that this new location carries no height-based exception unlike all other listed locations.

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**Lesson 136 422.13 — Storage-Type Water Heaters [REVISED]**

Students will learn that the 2026 NEC formally classifies fixed storage-type water heaters of 120 gallons or less as continuous loads, requiring 125% sizing at both the branch circuit and feeder level — correcting a gap that previously limited this rule to branch circuits only.

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**Lesson 137 430.98(A) — Motor Control Centers [REVISED]**

Students will learn that the 2026 NEC requires MCCs supplied by feeders to be permanently marked with the identification and location of all disconnecting means using durable machine-produced labels per 110.21(B), and how this affects MCC labeling and inspection practices.

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**Lesson 138 445.13 — Minimum Ampacity and Size [REVISED]**

Students will learn how the 2026 NEC restructured 445.13 into four subdivisions separating protected, unprotected, neutral, and grounding/bonding conductors, with updated cross-references to Article 120 reflecting the reorganization from Article 220.

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**Lesson 139 500.30 — Bonding in Hazardous (Classified) Locations [NEW]**

Students will learn that the 2026 NEC consolidated bonding requirements for Class I, II, and III hazardous locations into a single new Section 500.30, specifying permitted and prohibited bonding methods and eliminating the need to reference three separate predecessor sections.

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**Lesson 140 512.6 — Prohibited Locations [NEW]**

Students will learn that the 2026 NEC introduced Section 512.6 prohibiting cannabis extraction operations from being located in any building containing assembly, educational, health care, residential, or detention occupancies — adopting language directly from NFPA 1 Fire Code.

**Lesson 141 517.20(A) — Receptacles and Fixed Equipment [REVISED]**

Students will learn that the 2026 NEC added Section 517.20(A)(3) prohibiting shared GFCI protection among multiple receptacles in operating rooms, requiring each receptacle to have its own individual GFCI device to prevent a single trip from de-energizing multiple outlets.

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**Lesson 142 525.21 — Disconnecting Means [REVISED]**

Students will learn how the 2026 NEC restructured 525.21 into separate rules for moving and nonmoving attractions, including a new exception permitting a 15- or 20-amp cord-and-plug connection as the disconnecting means for small GFCI-protected nonmoving portable structures.

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**Lesson 143 545.26 — Bonding of Exposed Non-Current-Carrying Metal Parts [REVISED]**

Students will learn that the 2026 NEC added an explicit requirement for bonding the metal chassis of multi-section relocatable structures using a minimum 8 AWG solid copper conductor with terminations per 250.8 and 250.12, separating bonding from grounding requirements.

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**Lesson 144 550.51(A) — Mobile Home Service Equipment [RELOCATED]**

Students will learn that mobile home service equipment requirements were renumbered from 550.32(A) to 550.51(A) in the 2026 NEC and that a new Informational Note was added referencing Article 230 general service requirements for consistency with manufactured home provisions.

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**Lesson 145 555.15 — Servicing and Replacing of Equipment [REVISED]**

Students will learn how the 2026 NEC restructured 555.15 into subdivisions (A) Servicing and (B) Replacing, each with distinct compliance standards, and added a mandatory circuit inspection requirement during replacements that must be resolved before the job is closed out.

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**Lesson 146 680.5 — GFCI and SPGFCI Protection [REVISED]**

Students will learn that the 2026 NEC revised 680.5(B) to create separate amperage thresholds for single-phase (60A or less) and three-phase (100A or less) circuits, requiring GFCI protection for three-phase branch circuits up to 100 amperes in Article 680 locations.

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**Lesson 147 680.30(B) — Additional Requirements [NEW]**

Students will learn that the 2026 NEC added Section 680.30(B) requiring storable pools that abut a permanent deck enclosing any portion of the perimeter for pool access to comply with the equipotential bonding requirements of Section 680.26.

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**Lesson 148 692.7 — Maximum Voltage [NEW]**

Students will learn that the 2026 NEC introduced Section 692.7 establishing the first explicit DC voltage limits for fuel cell systems: 1000 volts for commercial and other buildings, and 600 volts for one- and two-family dwellings, harmonizing fuel cells with Article 690 solar PV standards.

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**Lesson 149 701.9 — Surge Protection [NEW]**

Students will learn that the 2026 NEC added Section 701.9 requiring listed surge protective devices (SPDs) on all switchgear, switchboards, and panelboards associated with legally required standby systems, aligning SPD protection with emergency systems already required under Article 700.

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**Lesson 150 800.24(A) — General [DELETED]**

Students will learn that Section 800.24(A) was deleted from the 2026 NEC when the independence of Chapter 8 was removed, and that the general installation quality standard — "professional and skillful manner" — in Section 110.12(A) now applies uniformly to communications work.

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**Lesson 151 90.1 — Purpose and Scope of the 2024 NFPA 70E Standard [PROGRAM]**

Students will learn what the 2024 NFPA 70E is designed to accomplish, what workplace electrical hazards it addresses, and which workers and work environments it governs.

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**Lesson 152 90.2 — Who the Standard Applies To — Coverage and Exemptions [PROGRAM]**

Students will learn which employers, employees, and electrical work activities fall within the scope of the 2024 NFPA 70E, and which are explicitly excluded from coverage.

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**Lesson 153 100 — Part I — Essential Defined Terms — Hazard Recognition [DEFINITIONS]**

Students will learn the precise 2024 NFPA 70E definitions for arc flash hazard, arc flash boundary, electrical hazard, incident energy, and other hazard-recognition terms used throughout the standard.

**Lesson 154 100 — Part II — Essential Defined Terms — Protective Measures and Status [DEFINITIONS]**

Students will learn how the 2024 NFPA 70E defines electrically safe work condition, energized, qualified person, working on vs. working near, and other terms that determine what PPE and procedures are required.

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**Lesson 155 105.1 — Scope of Article 105 — Where Work Practices Apply [PROGRAM]**

Students will learn which types of electrical work and work locations are governed by the safety-related work practices in Article 105 and how the scope connects to the rest of the standard.

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**Lesson 156 105.3 — Employer and Employee Responsibility for Electrical Safety [PROGRAM]**

Students will learn what the 2024 NFPA 70E requires of employers in establishing safety programs and what personal responsibilities electricians carry for their own protection on the job.

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**Lesson 157 110.1 — Electrical Safety Program — Required Elements and Documentation [PROGRAM]**

Students will learn what a compliant 2024 NFPA 70E electrical safety program must contain, including written procedures, controls, and how program elements translate to field-level compliance.

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**Lesson 158 110.1(H) — Electrical Safety Program Auditing Requirements [PROGRAM]**

Students will learn when and how the 2024 NFPA 70E requires employers to audit their electrical safety program and what documentation and corrective action processes must be in place.

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**Lesson 159 110.2 — Training Requirements — Qualified and Unqualified Persons [PROGRAM]**

Students will learn what training the 2024 NFPA 70E requires before an electrician can be classified as a qualified person and what that classification allows and requires in the field.

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**Lesson 160 110.3 — Lockout/Tagout Program — Employer Program Requirements [LOTO]**

Students will learn what a compliant lockout/tagout program must include under the 2024 NFPA 70E, including how it coordinates with OSHA requirements and when written procedures are mandatory.

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**Lesson 161 110.4 — Test Instruments, Equipment, and Safety Interlocks [PROCEDURES]**

Students will learn what the 2024 NFPA 70E requires for selecting, rating, and inspecting test instruments used near energized equipment, and why bypassing safety interlocks is prohibited.

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**Lesson 162 110.5 — Portable Electric Tools and Equipment — Safety Requirements** **[PROCEDURES]**

Students will learn the 2024 NFPA 70E requirements for inspection, grounding, and safe use of portable electric tools and equipment on electrical work sites and in energized areas.

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**Lesson 163 110.6 — Alerting Techniques — Barricades, Signage, and Attendants** **[PROCEDURES]**

Students will learn when the 2024 NFPA 70E requires barricades, safety signs, and safety attendants to protect workers and bystanders from electrical hazards in the work zone.

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**Lesson 164 120.1 — What Constitutes an Electrically Safe Work Condition** **[LOTO]**

Students will learn the 2024 NFPA 70E definition and requirements for an electrically safe work condition, including why it is the preferred method for all work on electrical equipment.

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**Lesson 165 120.2 — Lockout/Tagout — Devices, Documentation, and Procedures** **[LOTO]**

Students will learn what types of lockout/tagout devices the 2024 NFPA 70E permits, what written procedures must include, and how to apply them correctly before work begins.

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**Lesson 166 120.2(B) — Simple vs. Complex Lockout/Tagout Procedures** **[LOTO]**

Students will learn how the 2024 NFPA 70E distinguishes between simple and complex lockout/tagout scenarios and what additional coordination and documentation complex procedures require.

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**Lesson 167 120.3 — Temporary Protective Grounding Equipment** **[LOTO]**

Students will learn when the 2024 NFPA 70E requires temporary protective grounding, how grounds must be rated and installed, and the correct sequence for applying and removing them safely.

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**Lesson 168 120.4 — Removal of Lockout/Tagout Devices — Proper Sequence and Authority** **[LOTO]**

Students will learn who has authority to remove lockout/tagout devices under the 2024 NFPA 70E, the required notification steps before removal, and what to do if the installing worker is absent.

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**Lesson 169 120.5 — Sequence for Achieving an Electrically Safe Work Condition** **[LOTO]**

Students will learn the exact step-by-step sequence required by the 2024 NFPA 70E to establish an electrically safe work condition, including verification with an appropriately rated voltage tester.

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**Lesson 170 130.1 — Justification for Work on or Near Energized Conductors** **[ASSESSMENT]**

Students will learn what the 2024 NFPA 70E requires before any work on energized equipment is authorized, including the infeasibility or increased hazard justification that must be documented.

**Lesson 171 130.2(A) — Energized Electrical Work Permit — When It Is Required** **[PROCEDURES]**

Students will learn exactly which energized work situations require a written energized electrical work permit under the 2024 NFPA 70E, and when the permit requirement may be waived by exception.

**Lesson 172 130.2(B) — Energized Electrical Work Permit — Required Elements** **[PROCEDURES]**

Students will learn every element the 2024 NFPA 70E requires on an energized electrical work permit, including hazard descriptions, PPE specifications, and the approval authority chain.

**Lesson 173 130.3 — Approach Boundaries — Limited, Restricted, and Arc Flash** **[ASSESSMENT]**

Students will learn how the 2024 NFPA 70E defines the limited approach boundary, restricted approach boundary, and arc flash boundary, and what each boundary requires of qualified and unqualified workers.

**Lesson 174 130.4 — Shock Risk Assessment — Purpose and Required Content** **[ASSESSMENT]**

Students will learn what a shock risk assessment must address under the 2024 NFPA 70E, including voltage levels, boundary distances, and what PPE determination must result from the assessment.

**Lesson 175 130.4(C) — Approach Distances to Energized Electrical Conductors** **[ASSESSMENT]**

Students will learn how to read and apply the 2024 NFPA 70E approach distance tables, including which distances apply at common voltages encountered in residential and commercial electrical work.

**Lesson 176 130.5 — Arc Flash Risk Assessment — Overview and Triggering Conditions** **[ASSESSMENT]**

Students will learn when the 2024 NFPA 70E requires an arc flash risk assessment to be performed, who is qualified to perform it, and what the two permitted methods for determining PPE are.

**Lesson 177 130.5(B) — Estimating Arc Flash Likelihood and Severity** **[ASSESSMENT]**

Students will learn how the 2024 NFPA 70E requires employers to estimate the likelihood of an arc flash occurrence and what factors — including maintenance condition and task type — affect the assessment.

**Lesson 178 130.5(C) — Arc Flash PPE Categories Method — Table-Based Selection** **[PPE]**

Students will learn how to use the PPE category method in the 2024 NFPA 70E tables to select arc-rated PPE based on equipment type and task, including the conditions that must be met to use the tables.

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**Lesson 179 130.5(G) — Incident Energy Analysis Method — Engineering-Based PPE Selection [ASSESSMENT]**

Students will learn what an incident energy analysis is, when the 2024 NFPA 70E requires it instead of the PPE category tables, and how to read an incident energy analysis label to select the correct arc rating.

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**Lesson 180 130.6 — Other Precautions for Personnel Activities — Safe Work Habits [PROCEDURES]**

Students will learn the 2024 NFPA 70E requirements covering safe body positioning, one-hand technique, non-conductive footwear, job briefings, and other field-level precautions for energized work.

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**Lesson 181 130.7(A)–(B) — PPE — General Requirements and Hazard-Based Selection [PPE]**

Students will learn the 2024 NFPA 70E general requirements for selecting and using PPE, including how PPE selection must be driven by the results of the shock and arc flash risk assessments.

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**Lesson 182 130.7(C)(1)–(13) — Arc-Rated Clothing and Body Protection Requirements [PPE]**

Students will learn what the 2024 NFPA 70E requires for arc-rated clothing layers, arc ratings, and how to build a compliant arc flash PPE system from the head, face, and body down to the hands and feet.

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**Lesson 183 130.7(C)(14) — Arc Flash PPE Category Tables — Reading and Applying Table 130.7(C)(14) [PPE]**

Students will learn how to locate and read Table 130.7(C)(14) in the 2024 NFPA 70E to identify the required PPE category for common electrical tasks and understand its limitations and prerequisites.

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**Lesson 184 130.7(C)(15) — PPE Category Method — Detailed Clothing and Equipment Requirements [PPE]**

Students will learn what arc-rated clothing, face shields, gloves, and footwear the 2024 NFPA 70E requires at each PPE category level, including minimum arc ratings and layering requirements.

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**Lesson 185 130.7(D) — Rubber Insulating Equipment — Gloves, Sleeves, and Blankets [PPE]**

Students will learn the 2024 NFPA 70E requirements for inspecting, rating, and using rubber insulating gloves, sleeves, and protective blankets for shock protection during energized electrical work.

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**Lesson 186 130.7(E) — Insulated Tools, Handles, and Test Instruments [PPE]**

Students will learn what the 2024 NFPA 70E requires for insulated tools and test instruments used near energized parts, including voltage ratings, inspection requirements, and prohibited modifications.

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**Lesson 187 130.7(F) — Arc Flash PPE for the Head and Face [PPE]**

Students will learn the 2024 NFPA 70E requirements for arc-rated face shields, flash hoods, hard hats, and hearing protection used in arc flash PPE systems, including arc rating and compatibility rules.

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**Lesson 188 130.8 — Other Precautions — Conductive Articles, Housekeeping, and Confined Spaces [PROCEDURES]**

Students will learn the 2024 NFPA 70E field precautions covering prohibition of conductive jewelry, safe housekeeping near energized equipment, and special requirements when working in confined electrical spaces.

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**Lesson 189 205.1–205.4 — General Maintenance Requirements for Electrical Equipment [MAINTENANCE]**

Students will learn what the 2024 NFPA 70E requires of employers for maintaining electrical equipment in safe operating condition, including inspection intervals, documentation, and qualified maintenance personnel.

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**Lesson 190 210.1–210.5 — Maintenance of Switchgear, Panelboards, and Disconnect Switches [MAINTENANCE]**

Students will learn the 2024 NFPA 70E maintenance requirements for substations, switchgear assemblies, panelboards, and disconnect switches, including the safety hazards that deferred maintenance creates.

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**Lesson 191 215.1–215.2 — Premises Wiring Maintenance — Conductors and Raceways [MAINTENANCE]**

Students will learn what the 2024 NFPA 70E requires for maintaining premises wiring and how deteriorated insulation, missing covers, and exposed conductors increase both shock and arc flash risk.

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**Lesson 192 225.1–225.3 — Maintenance of Fuses and Circuit Breakers [MAINTENANCE]**

Students will learn the 2024 NFPA 70E requirements for inspecting and maintaining fuses and circuit breakers, including why improper overcurrent device maintenance is a leading cause of elevated arc flash incident energy.

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**Lesson 193 230.1–230.4 — Maintenance Requirements for Rotating Equipment [MAINTENANCE]**

Students will learn what the 2024 NFPA 70E requires for maintaining motors, generators, and other rotating electrical equipment to prevent shock, arc flash, and mechanical hazards during service and inspection.

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**Lesson 194 235.1–235.4 — Battery and Battery Room Maintenance Requirements [MAINTENANCE]**

Students will learn the 2024 NFPA 70E maintenance requirements for battery systems and battery rooms, including ventilation, spill containment, and the electrical and chemical hazards present during maintenance tasks.

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**Lesson 195 240.1–240.4 — Maintenance of Portable Electric Tools and Equipment [MAINTENANCE]**

Students will learn the 2024 NFPA 70E requirements for inspecting and maintaining portable electric tools prior to use, including grounding, insulation integrity, and when damaged equipment must be removed from service.

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**Lesson 196 310.1–310.9 — Safety Work Practices for Electrolytic Cells [SPECIAL]**

Students will learn the unique electrical hazards and 2024 NFPA 70E safety requirements specific to electrolytic cell equipment, including why standard PPE and LOTO methods may require modification in these environments.

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**Lesson 197 320.1–320.5 — Battery Installation and Room Safety Requirements [SPECIAL]**

Students will learn the 2024 NFPA 70E safety requirements for working on battery installations, including arc flash hazards at DC voltages, hydrogen gas explosion risk, and PPE requirements unique to battery work.

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**Lesson 198 340.1–340.6 — Power Electronic Equipment — Stored Energy and Shock Hazards [SPECIAL]**

Students will learn the 2024 NFPA 70E safety requirements for working on power electronic equipment including drives and UPS systems, and why stored capacitor energy requires special wait times before work begins.

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**Lesson 199 Annex C — Limits of Approach — Reference Tables and Application [ASSESSMENT]**

Students will learn how to use the approach limit reference tables in Annex C of the 2024 NFPA 70E to determine safe working distances from exposed energized conductors at common commercial and industrial voltages.

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**Lesson 200 Annex D — Arc Flash Incident Energy Calculation Methods [ASSESSMENT]**

Students will learn what Annex D of the 2024 NFPA 70E provides for calculating incident energy and arc flash boundaries, and how to interpret the results of an engineering calculation as they appear on equipment labels.

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**Lesson 201** **Annex E — Electrical Safety Program — Structure and Sample Elements** **[PROGRAM]**

Students will learn how Annex E of the 2024 NFPA 70E guides employers in structuring a complete electrical safety program, including the policy, procedure, and training elements that field workers should expect from their employer.

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**Lesson 202** **Annex F — Hazard/Risk Evaluation Procedure — Workplace Application** **[ASSESSMENT]**

Students will learn how to apply the hazard and risk evaluation procedure in Annex F of the 2024 NFPA 70E to systematically identify electrical hazards and select appropriate protective measures before beginning work.

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**Lesson 203** **Annex I — Job Briefing and Planning Checklist — Field Use** **[PROCEDURES]**

Students will learn how to use the job briefing and planning checklist in Annex I of the 2024 NFPA 70E as a field tool before every energized work task, covering hazard identification, PPE verification, and rescue planning.

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**Lesson 204** **Annex Q — Human Performance and Workplace Electrical Safety** **[PROGRAM]**

Students will learn how Annex Q of the 2024 NFPA 70E addresses human error factors in electrical incidents, and how attention, fatigue, task complexity, and non-routine conditions contribute to workplace electrical injuries.

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