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NEC Changes

2023 NEC

Analysis of the 2023 NEC Changes

Why it's Great	Topics Covered
<p>This is our best-selling Code Changes course! This course covers important changes made to Article 90 - Chapter 8, including updates to requirements for equipment, wiring, grounding, and special occupancies. With full-color illustrations, real-world examples, and expert analysis, you'll gain the knowledge and skills necessary to ensure your electrical installations comply with the latest standards.</p> <p>Stay up-to-date with the latest 2023 NEC changes with this comprehensive program covering key articles</p>	<ul style="list-style-type: none">✓ Article 90 - Introduction to the NEC✓ Article 225 - Outside Branch Circuits and Feeders✓ Article 310 - Conductors for General Wiring✓ Article 352 - Rigid Polyvinyl Chloride Conduit (PVC)✓ Article 358 - Electrical Metallic Tubing✓ Article 408 - Switchboards and Panelboards✓ Article 410 - Luminaires, Lampholders, and Lamps✓ Article 422 - Appliances✓ Article 440 - Air-Conditioning and Refrigeration Equip.✓ Article 500 - Hazardous (Classified) Locations✓ Article 555 - Marinas, Boatyards, Commercial and Noncommercial Docking Facilities✓ Article 445 - Generators✓ Article 620 - Elevators, Escalators, and Moving Walks, Platform Lifts, and Stairway Chair Lifts✓ Article 625 - Electric Vehicle Power Transfer System✓ Article 630 - Electric Welders✓ Article 700 - Emergency Systems✓ Article 702 - Optional Standby Systems✓ Article 706 - Energy Storage Systems✓ Article 750 - Energy Management Systems✓ Article 800 - General Req for Comm. Systems

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2023 NEC Review of Changes for Services, Feeders, & Branch Circuits

Why it's Great	Topics Covered
Gain a solid understanding of the changes focusing on Services, Feeders, & Branch Circuits covered in the 2023 NEC. This course was expertly designed to provide you with an in-depth analysis of the changes that impact these electrical installations. Our course offers full-color illustrations that provide a visual representation of the concepts being taught. The author's analysis, technical clarifications, and detailed commentary offer a thorough understanding of the changes impacting the articles you frequently deal with.	<ul style="list-style-type: none">✓ Article 90 - Introduction to the NEC✓ Article 110 - Requirements for Electrical Installations✓ Article 200 - Use and Identification of Grounded Conductors✓ Article 210 - Branch Circuits✓ Article 215 - Feeders✓ Article 220 - Branch-Circuit, Feeder, and Service Load Calculations✓ Article 225 - Outside Branch Circuits and Feeders✓ Article 230 - Services✓ Article 240 - Overcurrent Protection✓ Article 242 - Overvoltage Protection

2023 NEC Changes for Electricians

Why it's Great	Topics Covered
<p>Stay up to date on your Code knowledge with the 2023 NEC Changes for Electricians course. This course provides a condensed yet comprehensive review of critical changes in the latest Code. With Mike Holt's expert analysis and technical clarifications, you'll gain a clear understanding of the updated Code rules and their practical applications. Plus, full-color illustrations and real-world scenarios reinforce what you've learned to help you retain the information and apply in everyday installations.</p> <p>You'll cover essential topics such as Branch Circuits, Feeders, Conductors for General Wiring, Metal-Clad Cable, Rigid Polyvinyl Chloride Conduit (PVC), Electrical Metallic Tubing, Switches, Switchboards and Panelboards, Luminaires, Lampholders, Lamps, and Electric Welders.</p>	<ul style="list-style-type: none">✓ Article 210 - Branch Circuits✓ Article 215 - Feeders✓ Article 310 - Conductors for General Wiring✓ Article 330 - Metal-Clad Cable✓ Article 352 - Rigid Polyvinyl Chloride Conduit (PVC)✓ Article 358 - Electrical Metallic Tubing✓ Article 404 - Switches✓ Article 408 - Switchboards and Panelboards✓ Article 410 - Luminaires, Lampholders, and Lamps✓ Article 630 - Electric Welders



2023 NEC Changes CH 1-4 (General Requirements for Wiring & Equipment)

Why it's Great	Topics Covered
Earn your CEUs and upgrade your electrical knowledge with this course! You'll review the significant changes in the 2023 NEC for General Requirements for Wiring & Equipment as outlined in Article 90 through Chapter 4. Through engaging full-color illustrations, author analysis, technical clarifications, and detailed commentary, you'll explore critical updates that impact electrical installations. Stay up-to-date with the latest 2023 NEC changes with this comprehensive program covering key articles	<ul style="list-style-type: none">✓ Article 90 - Introduction to the NEC✓ Article 225 - Outside Branch Circuits and Feeders✓ Article 310 - Conductors for General Wiring✓ Article 352 - Rigid Polyvinyl Chloride Conduit (PVC)✓ Article 358 - Electrical Metallic Tubing✓ Article 408 - Switchboards and Panelboards✓ Article 410 - Luminaires, Lampholders, and Lamps✓ Article 422 - Appliances✓ Article 440 - Air-Conditioning and Refrigeration Equipment

2023 NEC Changes CH 5-8 (Specific Requirements & Communications Systems)

Why it's Great	Topics Covered
Earn your CEUs and upgrade your electrical knowledge with this course! You'll review the significant changes in the 2023 NEC for Specific Requirements & Communications Systems as outlined in Chapter 5-8. Through engaging full-color illustrations, author analysis, technical clarifications, and detailed commentary, you'll explore critical updates that impact electrical installations. Stay up-to-date with the latest 2023 NEC changes with this comprehensive program covering key articles	<ul style="list-style-type: none">✓ Article 500 - Hazardous (Classified) Locations✓ Article 555 - Marinas, Boatyards, Commercial and Noncommercial Docking Facilities✓ Article 445 - Generators✓ Article 620 - Elevators, Escalators, and Moving Walks, Platform Lifts, and Stairway Chair Lifts✓ Article 625 - Electric Vehicle Power Transfer System✓ Article 630 - Electric Welders✓ Article 700 - Emergency Systems✓ Article 702 - Optional Standby Systems✓ Article 706 - Energy Storage Systems✓ Article 750 - Energy Management Systems✓ Article 800 - General Requirements for Communications Systems



2023 NEC Changes Impacting Pools, Hot Tubs, Fountains

Why it's Great	Topics Covered
<p>Expand your knowledge and earn CEUs with this 2023 NEC Changes Impacting Pools, Hot Tubs, and Fountains course. As these installations become more popular, it's critical to understand the changes in Article 680 to ensure the safety of your clients. Our course provides a comprehensive overview of the new, expanded, reorganized, clarified, and edited rules in Article 680.</p> <p>Our course materials include full-color illustrations, author analysis, technical clarifications, and detailed commentary to help you understand and retain what you learn. You'll come away from this course with a deeper understanding of the NEC's requirements and the ability to apply them effectively and safely in your work with swimming pools, spas, hot tubs, fountains, and similar installations.</p>	<ul style="list-style-type: none"> ✓ Article 680

Top 25 Changes in the 2023 NEC

Why it's Great	Topics Covered
<p>Get up-to-date on the latest changes in the 2023 NEC with our Top 25 Changes online course. In just two hours, you'll learn about important updates to key articles including GFCI protection, energy management systems, emergency disconnects, and more. Our expert instructors break down the changes with clear explanations, full-color illustrations, and practical examples to ensure you understand the new rules and how to apply them. Perfect for busy electricians who need to stay current on the latest codes and regulations, this course is a quick and efficient way to stay informed and up to date.</p>	<ul style="list-style-type: none"> ✓ Article 110.26 Spaces About Electrical Equipment ✓ Article 210.8 Ground-Fault Circuit-Interrupter Protection for Personnel ✓ Article 215.15 Barriers ✓ Article 220.70 Energy Management Systems (EMSs) ✓ Article 225.41 Emergency Disconnects ✓ Article 406.12 Tamper-Resistant Receptacles ✓ Article 410.184 Ground-Fault Circuit-Interrupter (GFCI) Protection and Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection ✓ Article 440.11 General ✓ Article 500.4 Documentation ✓ Article 511.7 Wiring and Equipment Installed Above Hazardous (Classified) Locations ✓ Article 555.4 Location of Service Equipment ✓ Article 625.40 Electric Vehicle Branch Circuit ✓ Article 680.5 Ground-Fault Circuit-Interrupter (GFCI) and Special Purpose Ground-Fault Circuit-Interrupter (SPGFCI) Protection ✓ Article 700.3 Tests and Maintenance ✓ Article 706.7 Commissioning and Maintenance



2020 NEC

2020 NEC Changes Part 1 Art 90-314

Why it's Great

If your state recently adopted the 2020 NEC and you want to catch up on the changes, this 2020 NEC Changes Part 1 course will help you do just that. With full-color illustrations and practical examples, you'll gain a thorough understanding of the safety requirements and installation tips related to electrical installations covered in Article 90-314. Plus, our author analysis, cautions, and warnings will help you avoid potential conflicts and dangers related to improper electrical installations.

Topics Covered

- ✓ Article 90-Introduction to the NEC
- ✓ Article 110-Req for Electrical Installations
- ✓ Article 200-Use and Identification of Grounded Conductors
- ✓ Article 210-Branch Circuits
- ✓ Article 215-Feeders
- ✓ Article 220-Branch-Circuit, Feeder, and Service Load Calculations
- ✓ Article 225-Outside Branch Circuits and Feeders
- ✓ Article 230-Services
- ✓ Article 240-Overcurrent Protection
- ✓ Article 242-Overvoltage Protection
- ✓ Article 250-Grounding and Bonding
- ✓ Article 300-General Requirements for Wiring Methods and Materials
- ✓ Article 310-Conductors for General Wiring
- ✓ Article 312-Cabinets

2020 NEC Changes Part 2 Art 400-805

Why it's Great

If your state recently adopted the 2020 NEC or you're staying ahead of the curve and want to catch up on the changes to special requirements and communication systems, this 2020 NEC Changes Part 2 course is a great course for you. Our full-color illustrations will help you visualize practical applications of the new requirements, while author commentary, cautionary notes, installation tips, and safety warnings ensure you understand the changes and how they impact your work. Whether you're an electrician, inspector, engineer, or other professional in the field, this course will help you stay compliant with the 2020 NEC standards.

Topics Covered

- ✓ Article 400-Flexible Cords and Flexible Cables
- ✓ Article 404-Switches
- ✓ Article 406-Receptacles and Attachment Plugs
- ✓ Article 408-Switchboards and Panelboards
- ✓ Article 410-Luminaires, Lampholders, and Lamps
- ✓ Article 422-Appliances
- ✓ Article 424-Fixed Electric Space-Heating Equip
- ✓ Article 440-Air-Cond and Refrigeration Equip
- ✓ Article 445-Generators
- ✓ Article 450-Transformers
- ✓ Article 517-Health Care Facilities
- ✓ Article 555-Marinas, Boatyards, Commercial and Noncommercial Docking Facilities
- ✓ Article 590-Temporary Installations
- ✓ Article 600-Electric Signs and Outline Lighting
- ✓ Article 625-Electric Vehicle Power Transfer Sys
- ✓ Article 680-Swimming Pools, Spas, Hot Tubs, Fountains, and Similar Installations
- ✓ Article 695-Fire Pumps
- ✓ Article 700-Emergency Systems
- ✓ Article 702-Optional Standby Systems
- ✓ Article 800-Gen Req for Communications Systems
- ✓ Article 805-Communications Circuits



Overview of the 2020 NEC Changes

Why it's Great	Topics Covered
This best-selling course will review the significant changes in Articles 110-700 of the 2020 NEC®. With Mike Holt's expert analysis and technical clarifications, you'll gain a clear understanding of the updated Code rules and their practical applications. Plus, full-color illustrations and real-world scenarios reinforce what you've learned to help you retain the information and apply in everyday installations. Enroll now to ensure compliance with the latest electrical safety standards.	<ul style="list-style-type: none">✓ Article 110-Requirements for Electrical Installations✓ Article 210-Branch Circuits✓ Article 230-Services✓ Article 250-Grounding and Bonding✓ Article 300-General Requirements for Wiring Methods and Materials✓ Article 406-Receptacles and Attachment Plugs✓ Article 410-Luminaires, Lampholders, and Lamps✓ Article 422-Appliances✓ Article 555-Marinas, Boatyards, Commercial and Noncommercial Docking Facilities✓ Article 590-Temporary Installations✓ Article 600-Electric Signs and Outline Lighting✓ Article 625-Electric Vehicle Power Transfer System✓ Article 680-Swimming Pools, Spas, Hot Tubs, Fountains, and Similar Installations✓ Article 695-Fire Pumps✓ Article 700-Emergency Systems



Code Related

2023 NEC

2023 Bonding and Grounding Review

Why it's Great

This program covers 2023 NEC, Article 250 Bonding and Grounding in-depth, along with other related Code rules from the NEC®. Often misunderstood, Bonding and Grounding is the most critical article in the NEC® since poor application of these rules leads to electrical shocks, power quality issues, and other hazards. This course is designed to clear up misconceptions about bonding versus grounding and provide an in-depth breakdown of each Code article that deals with this topic. Mike Holt's expertise in explaining these rules and their practical application in real-world scenarios will ensure you understand the "why" behind these rules, and know how to apply the NEC effectively every day. Understand the rules through full-color illustrations to help you visualize the code and safety requirements in practical use. You'll also benefit from author analysis, cautionary advice on potential conflicts and confusing NEC requirements, installation tips, and warnings of hazards associated with improper electrical installations.

Topics Covered

- ✓ Article 90-Introduction to the NEC
- ✓ Article 110 - Requirements for Electrical Installations
- ✓ Article 215 - Feeders
- ✓ Article 250 - Wiring and Protection
- ✓ Article 300 - General Requirements for Wiring Methods and Materials
- ✓ Article 314—Boxes, Conduit Bodies, and Handhole Enclosures
- ✓ Article 320—Armored Cable (Type AC)
- ✓ Article 330—Metal-Clad Cable (Type MC)
- ✓ Article 334—Nonmetallic-Sheathed Cable (Type NM)
- ✓ Article 340—Underground Feeder and Branch-Circuit Cable (Type UF)
- ✓ Article 342—Intermediate Metal Conduit (IMC)
- ✓ Article 344—Rigid Metal Conduit (RMC)
- ✓ Article 348—Flexible Metal Conduit (FMC)
- ✓ Article 350—Liquidtight Flexible Metal
- ✓ Article 352—Rigid Polyvinyl Chloride Conduit (PVC)
- ✓ Article 356—Liquidtight Flexible Nonmetallic Conduit (LFNC)
- ✓ Article 358—Electrical Metallic Tubing (EMT)
- ✓ Article 362—Electrical Nonmetallic Tubing (ENT)
- ✓ Article 376—Metal Wireways
- ✓ Article 386—Surface Metal Raceways
- ✓ Article 392—Cable Trays
- ✓ Article 404—Switches
- ✓ Article 406—Receptacles, Attachment Plugs, and Flanged Inlets
- ✓ Article 408—Switchboards and Panelboards
- ✓ Article 410—Luminaires
- ✓ Article 440—Air-Conditioning Equipment
- ✓ Article 450—Transformers
- ✓ Article 600—Electric Signs
- ✓ Article 680—Swimming Pools, Spas, Hot Tubs, Fountains, and Similar Installations

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2023 Field Applications for Bonding and Grounding

Why it's Great	Topics Covered
<p>This program covers the rules and applications for Bonding and Grounding as they apply to various NEC articles used in the field. Mike Holt's expertise in explaining these rules and their practical application in real-world scenarios will ensure you understand the "why" behind these rules, and know how to apply the NEC effectively every day.</p> <p>Understand the rules through full-color illustrations to help you visualize the code and safety requirements in practical use. You'll also benefit from author analysis, cautionary advice on potential conflicts and confusing NEC requirements, installation tips, and warnings of hazards associated with improper electrical installations.</p>	<ul style="list-style-type: none"> ✓ Article 300 - General Requirements for Wiring Methods and Materials ✓ Article 314—Boxes, Conduit Bodies, and Handhole Enclosures ✓ Article 320—Armored Cable (Type AC) ✓ Article 330—Metal-Clad Cable (Type MC) ✓ Article 334—Nonmetallic-Sheathed Cable (Type NM) ✓ Article 340—Underground Feeder and Branch-Circuit Cable (Type UF) ✓ Article 342—Intermediate Metal Conduit (IMC) ✓ Article 344—Rigid Metal Conduit (RMC) ✓ Article 348—Flexible Metal Conduit (FMC) ✓ Article 350—Liquidtight Flexible Metal ✓ Article 352—Rigid Polyvinyl Chloride Conduit (PVC) ✓ Article 356—Liquidtight Flexible Nonmetallic Conduit (LFNC) ✓ Article 358—Electrical Metallic Tubing (EMT) ✓ Article 362—Electrical Nonmetallic Tubing (ENT) ✓ Article 376—Metal Wireways ✓ Article 386—Surface Metal Raceways ✓ Article 392—Cable Trays ✓ Article 404—Switches ✓ Article 406—Receptacles, Attachment Plugs, and Flanged Inlets ✓ Article 408—Switchboards and Panelboards ✓ Article 410—Luminaires ✓ Article 440—Air-Conditioning Equipment ✓ Article 450—Transformers ✓ Article 600—Electric Signs ✓ Article 680—Swimming Pools, Spas, Hot Tubs, Fountains, and Similar Installations

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2023 General Requirements for Bonding and Grounding

Why it's Great	Topics Covered
<p>This program covers important articles in the 2023 NEC that are related to Bonding and Grounding. You'll get an in-depth review of article 250, along with other related Code rules that apply to general applications. Mike Holt's expertise in explaining these rules and their practical application in real-world scenarios will ensure you understand the "why" behind these rules, and know how to apply the NEC effectively every day.</p> <p>Understand the rules through full-color illustrations to help you visualize the code and safety requirements in practical use. You'll also benefit from author analysis, cautionary advice on potential conflicts and confusing NEC requirements, installation tips, and warnings of hazards associated with improper electrical installations.</p>	<ul style="list-style-type: none"> ✓ Article 110 - General Requirements for Electrical Installations ✓ Article 215 - Feeders ✓ Article 250 - Grounding and Bonding

2023 Understanding Solar PV and Energy Storage Systems

Why it's Great	Topics Covered
<p>With full-color illustrations, detailed commentary, and expert analysis, you'll gain a deep understanding of the practical applications of solar PV systems and the safety requirements needed for proper electrical installations. Our course covers a range of important topics, including wiring methods, grounding requirements, disconnects, and much more.</p>	<ul style="list-style-type: none"> ✓ Article 90-Introduction to the National Electrical Code ✓ Article 110 - General Requirements for Electrical Installations ✓ Article 480 - Stationary Standby Batteries ✓ Article 625 - Electric Vehicle Power Transfer System ✓ Article 690 - Solar Photovoltaic (PV) Systems ✓ Article 691 - Large-Scale Photovoltaic (PV) Electric Supply Stations ✓ Article 702 - Optional Standby Systems ✓ Article 705 - Interconnected Electric Power Production Sources ✓ Article 706 - Energy Storage Systems ✓ Article 710 - Stand-Alone Systems ✓ Article 750 - Energy Management Systems

2023 Limited Energy and Communication Systems

Why it's Great	Topics Covered
<p>Learn the essential topics and important NEC Rules for low-voltage systems with our 2023 Limited Energy Systems course. Our full-color illustrations will help you visualize practical applications of these requirements, while author commentary, cautionary notes, installation tips, and safety warnings ensure you understand the rules and how they impact your work. Review the NEC rules that apply to low-voltage and limited-energy systems, definitions, general installation requirements, and specific requirements for control, sound, video, CATV, CCTV, antennas, telephone, fiber optics, and more.</p>	<ul style="list-style-type: none"> ✓ Article 722 - Cables for Power-Limited Circuits and Fault-Managed Power Circuits ✓ Article 724 - Class 1 Power-Limited Circuits and Class 1 Power-Limited Remote-Control and Signaling Circuits ✓ Article 725 - Remote-Control, Signaling, and Power-Limited Circuits ✓ Article 760 - Fire Alarm Systems ✓ Article 770 - Optical Fiber Cables ✓ Article 800 - General Requirements for Communications Circuits



2020 NEC

2020 Grounding vs Bonding

Why it's Great	Topics Covered
<p>Transform your electrical knowledge with Mike Holt's comprehensive online course on Bonding and Grounding. This program covers Article 250 Grounding and Bonding in-depth, along with other related Code rules from the NEC®. Often misunderstood, Bonding and Grounding is the most critical article in the NEC® since poor application of these rules leads to electrical shocks, power quality issues, and other hazards.</p> <p>This course is designed to clear up misconceptions about bonding versus grounding and provide an in-depth breakdown of each Code article that deals with this topic. Mike Holt's expertise in explaining these rules and their practical application in real-world scenarios will ensure you understand the "why" behind these rules, and know how to apply the NEC effectively every day.</p> <p>With this online course, you'll review important articles such as 90, 110, 250, 440, 450, and 517, utilizing full-color illustrations to visualize the code and safety requirements in practical use. You'll also benefit from author analysis, cautionary advice on potential conflicts and confusing NEC requirements, installation tips, and warnings of hazards associated with improper electrical installations.</p>	<ul style="list-style-type: none">✓ Article 90-Introduction to the NEC✓ Article 110 - Requirements for Electrical Installations✓ Article 250 - Wiring and Protection✓ Article 440- Air-Conditioning and Refrigeration Equipment✓ Article 450- Transformers✓ Article 517 - Health Care Facilities

2020 NEC Requirements for Solar PV Systems

Why it's Great	Topics Covered
<p>Looking to expand your knowledge of Solar PV Systems and their electrical systems? Our online course is designed to thoroughly review Article 690 as well as other important related NEC Articles from 90-820, in the 2020 NEC.</p> <p>With full-color illustrations, detailed commentary, and expert analysis, you'll gain a deep understanding of the practical applications of solar PV systems and the safety requirements needed for proper electrical installations. Our course covers a range of important topics, including wiring methods, grounding requirements, disconnects, and much more.</p>	<ul style="list-style-type: none">✓ Article 90-Introduction to the National Electrical Code✓ Article 110 - Requirements for Electrical Installations✓ Article 480 - Storage Batteries✓ Article 690 - Solar Photovoltaic (PV) Systems✓ Article 691 - Large-Scale Photovoltaic (PV) Electric Supply Stations✓ Article 705 - Interconnected Electric Power Production Sources✓ Article 706 - Energy Storage Systems✓ Article 710 - Stand-Alone Systems



2020 Limited Energy and Communication Systems

Why it's Great	Topics Covered
Learn the essential topics and important NEC Rules for low-voltage systems with our 2020 Limited Energy and Communication Systems course. Our full-color illustrations will help you visualize practical applications of these requirements, while author commentary, cautionary notes, installation tips, and safety warnings ensure you understand the rules and how they impact your work. Review the NEC rules that apply to low-voltage and limited-energy systems, definitions, general installation requirements, and specific NEC requirements for control, sound, video, CATV, CCTV, antennas, telephone, fiber optics, and more.	<ul style="list-style-type: none"> ✓ Article 90 - Introduction ✓ Article 110 - Requirements for Electrical ✓ Article 725 - Remote-Control, Signaling, and Power-Limited Circuits ✓ Article 760 - Fire Alarm Systems ✓ Article 770 - Optical Fiber Cables and Raceways ✓ Article 800 - Communications Circuits ✓ Article 810 - Radio and Television Satellite Equipment ✓ Article 820 - Community Antenna Television and Radio Distribution Systems (Coaxial Cable)

2020 Wiring Methods and Materials

Why it's Great	Topics Covered
Upgrade your knowledge of electrical wiring with our comprehensive online course on Wiring Methods and Materials. Designed for electricians, this course covers essential topics including conductor properties, insulation, ampacity, overcurrent protection, raceways, enclosures, and more. Our course materials include full-color illustrations, author analysis, technical clarifications, and detailed commentary to help you understand and retain what you learn. You'll come away from this course with a better understanding of how the rules impact wiring installations how to apply them effectively and safely.	<ul style="list-style-type: none"> ✓ Article 90 – Introduction to the NEC ✓ Article 100 - Definitions ✓ Article 110- Requirements for Electrical installations ✓ Article 310 – Conductors for General Wiring ✓ Article 312 – Cabinet ✓ Article 320 – Armored Cable (Type AC) ✓ Article 330 – Metal-Clad Cable (Type MC) ✓ Article 334 – Nonmetallic-Sheathed Cable (Type NM) ✓ Article 336 – Power and Control Tray Cable (Type TC) ✓ Article 338 - Service-Entrance Cable (Types SE and USE) ✓ Article 340 - Underground Feeder and Branch-Circuit Cable (Type UF) ✓ Article 342 – Intermediate Metal Conduit (Type IMC) ✓ Article 344 – Rigid Metal Conduit (Type RMC) ✓ Article 348 – Flexible Metal Conduit (Type FMC) ✓ Article 350 – Liquidtight Flexible Metal Conduit (Type LFMC) ✓ Article 352 – Rigid Polyvinyl Chloride Conduit (Type PVC) ✓ Article 356 – Liquidtight Flexible Nonmetallic Conduit (Type LFNC) ✓ Article 358 – Electrical Metallic Tubing (EMT) ✓ Article 362 – Electrical Nonmetallic Tubing (ENT) ✓ Article 376 – Metal Wireways ✓ Article 380 – Multioutlet Assemblies ✓ Article 392 – Cable Trays



Industry Related

Dwelling Unit Calculations (2023 Version)

Why it's Great	Topics Covered
This course focuses on sizing the service load for a dwelling unit. Sizing the service load for a dwelling unit is not simply a matter of adding up the individual loads or the rated current for all the breaker sizes. The Code recognizes there's load diversity and that not all loads will be in use simultaneously. Therefore, it provides various "demand factors" which are to be applied to calculate the "demand load." The Code provides two different load calculation methods-optional and standard; both methods are explained in this course.	<ul style="list-style-type: none">✓ Part A-Optional Method Load Calculations✓ Part B-Standard Method Load Calculations✓ Part C-Neutral Load Calculations

NFPA 70e Electrical Safety Review (2021 edition)

Why it's Great	Topics Covered
This comprehensive online course is designed to provide students with a thorough understanding of the NFPA 70E Electrical Safety in the Workplace standard, updated in 2021. From appropriate work space clearances to personal protective equipment (PPE), the course covers all the rules and guidelines necessary for ensuring safety when working with electricity. By taking this course, students will gain the knowledge and skills needed to adhere to the NFPA 70E requirements and keep themselves and others safe while working with electrical equipment.	<ul style="list-style-type: none">✓ 90.1 - Purpose✓ 90.2 - Scope✓ 90.3 - Standard Arrangement✓ 90.4 - Mandatory Rules, Permissive Rules, and Explanatory Material✓ 90.5 - Formal Interpretations✓ Article 100 - Definitions✓ Article 105 - Application of Safety-Related Work Practices and Procedures✓ Article 110 – Electrical Safety-Related Work Practices✓ Article 120 – Establishing and Electrically Safe Work Condition✓ Article 130 – Work Involving Electrical Hazards✓ Article 205 – General Maintenance Requirements✓ Article 210 - Switchgear, Switchboards, Panelboards, Motor Control Centers, and Disconnect Switches✓ Article 225 – Fuses and Circuit Breakers✓ Article 250 – Personal Safety and Protective Equipment



Electrical Theory Review

Why it's Great	Topics Covered
This interactive online course provides essential general electrical knowledge that every professional in the field needs to know. You will gain a comprehensive understanding of matter, electron theory, magnetism, electricity, and electromagnetism. The course also covers important mathematical concepts and electrical formulas, including calculations using voltage, resistance, single-phase and multi-phase circuits. By refreshing your knowledge of these calculations, you will be able to perform them more efficiently and safely in your daily work as an electrician.	<ul style="list-style-type: none">✓ Electrician's Math✓ Basic Electrical Circuits and Formulas✓ Series Circuits✓ Parallel Circuits✓ Series-Parallel Circuits✓ Multiwire Branch Circuits✓ Understanding Alternating Current✓ Capacitance✓ Induction✓ Power Factor✓ Efficiency✓ Motor Basics✓ Transformers

Theory 1 - Electrical Fundamentals/Basic Electricity

Why it's Great	Topics Covered
Gain a strong foundation in electrical fundamentals with this interactive and user-friendly online course. Ideal for anyone working with electricity, this course will help you understand the theory behind electrical systems and the reasons for the rules in the code.	<ul style="list-style-type: none">✓ Matter✓ Electron Theory✓ Magnetism✓ Electricity✓ Electromagnetism✓ Uses of Electromagnetism✓ The Electrical Circuit✓ Basic Math✓ Electrical Formulas✓ Ohm's Law

Theory 2 - Electrical Circuits, Systems, Protection

Why it's Great	Topics Covered
Take your understanding of electrical systems to the next level with this interactive and user-friendly online course. This course will provide you with a comprehensive understanding of electrical circuits, systems, and protections, allowing you to work safely and effectively with electrical systems.	<ul style="list-style-type: none">✓ Series Circuits✓ Parallel Circuits✓ Series-Parallel Circuits✓ Multiwire Circuits✓ The Electrical System✓ Protection Devices✓ Fuse vs. Circuit Breaker✓ Selection and Operation of Circuit Breakers✓ Grounding and Ground Fault Protection



Theory 3 - Alternating Current, Motors, Generators, Transformers

Why it's Great	Topics Covered
This interactive and user-friendly online course provides a comprehensive overview of alternating current, motors, generators, and transformers. You will gain a solid understanding of the principles behind these important electrical components and their applications.	<ul style="list-style-type: none">✓ Alternating Current✓ Capacitance✓ Induction✓ Power Factor and Efficiency✓ Motors✓ Generators✓ Transformers

Understanding Basic Motor Controls

Why it's Great	Topics Covered
This online course provides a comprehensive introduction to motor controls, covering the basics of motor control circuits, schematics, and various control methods. Whether you're just starting out or seeking to expand your knowledge, this course is designed to help you gain a strong foundation in motor controls.	<ul style="list-style-type: none">✓ Chapter 1- Introduction to Motor Controls✓ Chapter 2- Motor Control Circuits and Schematics✓ Chapter 3- Control Methods and Devices✓ Chapter 4- Reversing Motor Controls✓ Chapter 5- Control of Multiple Motors✓ Annex A- Miscellaneous Requirements✓ Annex B- Article 430



Business and Finance

Business Management Part 1

Why it's Great	Topics Covered
This comprehensive course covers a wide range of topics, including time management, business forecasting, goal setting, and more. Whether you're a new business owner or an experienced entrepreneur, you'll benefit from the insights and strategies shared in this course. With lessons on marketing, bonding, taxes, insurance, labor units, and labor management, you'll have everything you need to build a thriving, profitable business.	<ul style="list-style-type: none">✓ Time Management✓ Business Forecasting✓ Business Reputation✓ Goal Setting✓ Delegation✓ Marketing✓ Bonding✓ Taxes✓ Insurance✓ Labor Units✓ Labor Management

Business Management Part 2

Why it's Great	Topics Covered
Designed to provide a solid foundation in the basics of running a successful electrical contracting business, this course covers essential topics such as leadership, project management, estimating, budgeting, and much more. Whether you're a business owner or employee, you'll gain valuable insights into managing and growing your electrical contracting business.	<ul style="list-style-type: none">✓ Leadership✓ Managements Role✓ Project Management✓ Profit✓ Training✓ Understanding break even cost✓ Budgeting✓ Billing/invoicing✓ Estimating✓ Bids✓ Proposals✓ Planning and Organizing✓ Job Schedule✓ Customers✓ Bid Analysis✓ Plans



Estimating Fundamentals

Why it's Great	Topics Covered
Learn the fundamentals of estimating and bidding with Mike Holt's Estimating Fundamentals course. This comprehensive online program covers the essential steps involved in preparing a bid, including calculating material cost, labor hours, break-even cost, and overhead. With this course, you'll gain a solid understanding of the estimating and bidding process, and learn how to create and submit professional bids that will impress your customers.	<ul style="list-style-type: none">✓ Introduction to Estimating Basics✓ About Estimating✓ Understanding Labor Units✓ Unit Pricing

Estimating and Bidding

Why it's Great	Topics Covered
In this course, you will learn the important steps involved in preparing a bid, including how to total material costs, determine labor hours, and calculate break-even cost and overhead. Additionally, you will gain knowledge on the bid process and the best practices for creating and submitting a winning bid. Whether you're new to estimating and bidding or an experienced professional, this course is a valuable resource for improving your skills and growing your business.	<ul style="list-style-type: none">✓ The Estimating Process✓ Determining Break-Even Cost✓ The Bid Process

Estimating – The Basics

Why it's Great	Topics Covered
Every business activity requires a fundamental set of skills, and electrical estimating is no different. The fundamentals of estimating lay the foundation for understanding the process of creating electrical estimates to determine the bid price, how estimates are used in the bid process, the responsibilities and resources required for estimators, and the critical things you must consider to ensure an accurate estimating process.	<ul style="list-style-type: none">✓ Introduction to Estimating✓ Qualities of an Estimator✓ The Estimating Process



Estimating – Preparing to Bid the Job

Why it's Great

To submit a bid, you must know how much the project will cost. To do this, you must prepare an estimate. This course reviews the process of creating a quality takeoff used to estimate the cost to complete your scope of work, the major cost components of the job, including material and labor, using unit pricing as an alternate estimating method to save time, and determining your break-even point.

Topics Covered

- ✓ The Takeoff
- ✓ Determining Labor Costs
- ✓ Unit Pricing
- ✓ Determining Break-Even Cost

