

2023 NEC® Fundamentals Live Seminar

Provider Information

Provider	Email	Phone
Mike Holt Enterprises	ceuonline@mikeholt.com	888-632-2633

General Information

Instructors

Main Instructor: Mike Holt
Backup Instructors: Brian House

Course Description

The goal of this class is to identify those significant changes and provide explanation and analysis to help the student understand the rules, their impact, and their practical application. This class brings you an accurate, in-depth coverage of the most important concepts in the 2023 NEC®.

This dynamic presentation translates the very technical language of the NEC® into everyday electrician's language to ensure a safe Code-compliant system that is designed, installed, and inspected to reflect the significant knowledge found in the 2023 NEC®.

Class Attendance Verification and Evaluation

Students' attendance is monitored with sign-in and sign-out sheets that verify actual time spent in the course. Students will also complete a course evaluation form for the course content and the instructor. Please see the accompanying packet for a sample of the Course Evaluation sheet.

- The students' sign in form will be stamped by our check-in staff.
- At the end of the class, the sign in forms are picked up by our staff. The students are handing them to us before they exit the class.
- In order to receive credit for the course, the sign in form must have signed in and out and must be stamped and must match the identification verified on the order.

Students will be provided an instructor and course evaluation during the class. We will collect and review each evaluation.

Contact Us:

Course Materials

Students will receive the entire PowerPoint Presentation as a booklet at the beginning of class. The handout will include references and space to add their own notes. Cost to students is \$265. Please see the included packet for a sample of the handout

Schedule of Class Dates and Locations

Date	Time	Location
May 4th, 2024	8:00am – 5:00pm	Marriott Hotel, Coral Springs, Florida 11775 Heron Bay Blvd, Coral Springs, FL 33076
June 15th, 2024	8:00am – 5:00pm	Rosen Plaza Hotel, Orlando, Florida 9700 International Drive, Orlando, FL, 32819

Course Topics

Time	Topics
	Introduction and General Requirements
8:00am - 8:50am	Article 90 - Introduction to the National Electrical Code
	90.3 Code Arrangement
	90.4 Enforcement
	90.7 Examination of Equipment for Safety
8:50am - 9:00am	<i>Break</i>
9:00am - 10:20am	Article 110 - General Requirements for Electrical Installations
	110.2 Approval of Conductors and Equipment
	110.3 Use of Equipment (B) Installation and Use
	110.8 Suitable Wiring Methods
	110.12 Mechanical Execution of Work (A) Unused Openings (B) Integrity of Electrical Equipment
	110.14 Conductor Termination and Splicing (A) Conductor Terminations (B) Conductor Splices (D) Torquing of Terminal Connections
	110.22 Identification of Disconnecting Means (A) General
	110.26 Spaces Around Electrical Equipment (A) Working Space (B) Clear Working Space
10:20am - 10:30am	<i>Break</i>
	Chapter 2 - Wiring and Protection
10:20am - 11:00am	Article 200 - Use and Identification of Grounded Conductors

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	200.7 Use of White or Gray Color (A) General (C) Reidentification of Neutral Conductor in Cables
11:00am - 12:00pm	Article 210 - Branch-Circuits
	210.8 GFCI Protection (A) Dwelling Units (C) Crawl Space Lighting Outlets (D) Specific Appliance (F) Outdoor Dwelling Outlets
	210.12 Arc-Fault Circuit-Interrupter Protection (B) Dwelling Units (E) Branch-Circuit Wiring Extensions, Modifications, or Replacements
	210.21 Receptacle Rating (B) Receptacles - Rating and Load Capacity
12:00pm - 1:00pm	Lunch
	Chapter 3 - Wiring Methods and Materials
1:00pm - 2:30pm	Article 300 - General Requirements for Wiring Methods and Materials
	300.3 Conductors (A) Conductors (B) Conductors Grouped Together (C) Mixing Conductors of Different Voltage Systems
	300.4 Protection Against Physical Damage (A) Cables and Raceways Through Wood members (B) Nonmetallic-Sheathed Cable and Electrical Nonmetallic Tubing Through Metal Framing Members (D) Cables and Raceways Parallel to Framing Members and Furring Strips (E) Wiring Under Metal-Corrugated Roof Decking (G) Raceway Termination Fittings
	300.5 Underground Installations (A) Minimum Burial Cover Requirements (C) Cables and Conductors Under Buildings (D) Protecting Underground Cables and Conductors (E) Underground Splices and Taps (F) Backfill (G) Raceway Seals (H) Bushing (I) Conductors Grouped Together (J) Earth Movement
	300.15 Boxes or Fittings, Splices and Terminations (A) Wiring Methods with Interior Access (G) Underground Conductor and Cable Splices
2:30pm - 3:00pm	Article 314 - Boxes, Conduit Bodies, and Handle Enclosures
	314.3 Nonmetallic Boxes
	314.15 Wet Locations
	314.23 Securing Boxes (A) Securing Boxes to Surface (B) Securing Boxes to Structural Member (C) Securing Boxes to Finished Surface (D) Securing Boxes to Suspended-Ceiling (E) Securing Boxes without Devices or Luminaires with Threaded Raceway (F) Securing Boxes with Devices or Luminaires with Threaded Raceway (G) Boxes in Concrete or Masonry (H) Pendant Boxes
	314.29 Wiring to be Accessible

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	(A) In Buildings (B) Handhole Enclosures
	314.30 Handhole Enclosures (B) Wiring Entries (C) Enclosure Wiring (D) Covers
3:00pm - 3:10pm	<i>Break</i>
3:10pm - 3:30pm	Article 334 - Nonmetallic-Sheathed Cable (Type NM)
	334.10 Type NM Cable, Uses Permitted
	334.12 Uses Not Permitted (A) Locations (B) Conditions
3:30pm - 3:45pm	Article 352 - Rigid Polyvinyl Chloride Conduit (PVC)
	352.30 Securing and Supporting (A) Securely Fastened (B) Supports
	352.44 Expansion Fittings (A) Thermal Expansion and Contraction (B) Earth Movement
3:45pm - 4:00pm	Article 362 - Electrical Nonmetallic Tubing (ENT)
	362.10 Uses Permitted
	362.12 Uses Not Permitted
4:00pm - 4:10pm	<i>Break</i>
	Chapter 4 - Equipment for General Use
4:10pm - 4:30pm	Article 404 - Switches
	404.2 Switch Connections (A) Three-Way and Four-Way Switches (C) Switches Controlling Lighting Loads
	404.8 Accessibility (A) Location
4:30pm - 4:45pm	Article 406 - Receptacles
	406.4 General Installation Requirements (A) Grounding Type (C) Methods or Connections to Equipment Grounding Conductor (D) Receptacle Replacement (G) Protection of Floor Receptacles
	406.12 Tamper-Resistant Receptacles
4:45pm - 5:00pm	Article 408 - Switchboards, Switchgear, and Panelboards
	408.4 Circuit Directory and Circuit Descriptions (A) Circuit Descriptions (B) Description of Source of Supply
5:00pm - 5:05pm	<i>Wrap Up</i>

Contact Us:



Mike Holt Biography

Educator

Mike has taught over 1,000 classes on over 40 different electrical related subjects to over 20,000 students. He is committed to the electrical industry and is recognized as one of America's most knowledgeable and dynamic Electrical Educators. He has touched the lives of many thousands with his dynamic and animated teaching style, which is relaxed, direct and fun. Perhaps Mike's best quality is his ability to motivate his students to become successful. His extensive use of illustration in all of his training programs makes learning fun. His ability to take the intimidation out of learning is reflected in the success rate of his students. His development of educational products that are interesting as well as technically correct has brought his name to become synonymous with quality education. His dedication to electrical training is the result of his own struggles as an electrician looking for a program that would help him succeed in this challenging industry.

Author

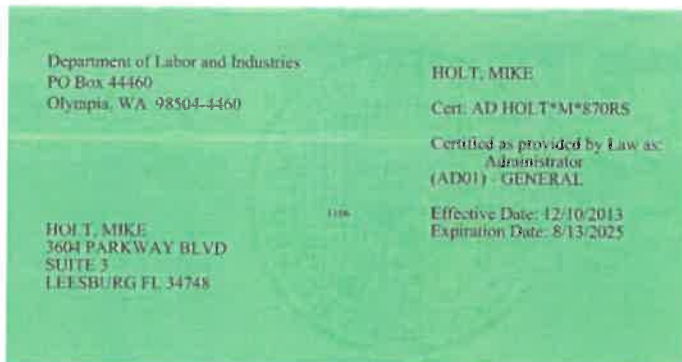
Mike Holt is a well-respected author and developer of software, books and video training programs. He has developed nearly 50 different electrical home-study training and business management programs which have been in use since 1978 by electrical apprenticeship training programs, contractors, inspectors, electricians, engineers and plant personnel. Mike has worked his way up the trade from Apprentice Electrician, Journeyman Electrician, Master Electrician, Electrical Inspector, Electrical Contractor, Electrical Designer and developer of training programs for the electrical industry. He was formerly a contributing Editor to Electrical Construction and Maintenance Magazine (EC&M) and Construction Editor to Electrical Design and Installation Magazine (EDI). His articles have been seen in CEE News, Electrical Contractor (EC) International Association of Electrical Inspectors (IAEI News), The Electrical Distributor (TED) and Power Quality Magazine (PQ).

Industry Expert

Mike has devoted his career to studying and understanding the National Electrical Code. His research and background has not only made Mike an expert, but it has earned him the respect of his peers. Mike teaches seminars throughout the United States and abroad, for individuals, organizations such as NECA, IAEI, IBEW and ICBO, and Fortune 500 companies such as IBM, Boeing, Motorola, and AT&T. He has been an active member of the International Association of Electrical Inspectors, National Board of Electrical Examiners, National Fire Protection Association, National Association of Licensing Boards, Florida Association of Electrical Contractors, and the Electrical Council of Florida. Mike Attended the University of Miami's Masters in Business Administration, MBA program.

Mike's courses are approved in over 32 states for online and home-study courses, and approved for live classes in over 18 states

Current Licenses



Washington Holt*M*870RS

Exp:8/13/2025



North Carolina L.25602

Exp: 03/21/2024



Daniel Brian House Biography

Brian House is a high-energy entrepreneur with a passion for doing business the right way. He's a licensed electrical contractor, and worked in varying aspects of electrical contracting throughout the southeast United States since the 1990s. From single family homes to industrial manufacturing he's enjoyed everything from service work to designing energy-efficient lighting retrofits, exploring "green" biomass generators, and partnering with residential PV companies. Brian has first-hand experience with the ups and downs of electrical contracting and a vision for its future. He expresses his commitment to the industry and his love for its people whether he's teaching, or working on books or instructional programs.

Since 2000 Brian has enjoyed teaching at seminars and apprenticeship classes. In 2010 he joined the Mike Holt video teams, and in 2014 joined the Mike Holt Enterprises staff as the technical director. He is still actively involved in developing in-house electrical apprenticeship programs, and continues to teach nationally for Mike Holt Enterprises on a variety of topics including Code Changes, Grounding vs. Bonding, Exam Preparation and How to Be a Great Instructor.

Brian and his wife Carissa have shared the joy of their four children and many foster children during 18 years of marriage. When not mentoring youth at work or church, he can be found racing mountain bikes with his kids or fly fishing on Florida's Intracoastal Waterway. Passionate about helping others, he regularly engages with the youth of the local community to motivate them into exploring their future.



Florida EC13001573 Exp: 08/31/2024

Washington HOUSEDB822OP Exp: 04/05/2024

Mario Valdes

813 SW 143 AVE • Pembroke Pines, FL, 33027
Phone: (786) 285-2157 • E-Mail: Mario@mikeholt.com



Experience

Electrical Content Specialist

Mike Holt Enterprises Inc

01/04/ 2021 – current

- Edited and reviewed Understanding National Electrical Code volume 1 & 2 text, both 2017 and 2020 editions
- Edited and reviewed Electrical Exam Preparation 2017 & 2020 edition, assisted in development of practice questions.
- Edited and reviewed Solar & Energy systems 2017 & 2020 editions, assisted in development of graphics for PowerPoint.
- Edited and reviewed Grounding & Bonding 2017 & 2020 editions, assisted in development of video content.
- Edited and reviewed Basic Electrical Theory 2022 edition, assisted in development of video content.

Electrical Instructor

College of Business & Technology

01/15/2017 – 01/01/2021

- Provide NEC code classes to students in electrical associates science program to facilitate their knowledge
- Created entire curriculum including power points, quizzes, midterm, & final exams.
- Effectively educated students on electrical blueprint reading regarding estimating take offs & interpretations of riser diagrams, panel schedules, basic electrical theory of AC & DC fundamentals in wiring, motors, transformers, and generators
- Cover detailed standards in PLC programming, Photovoltaic systems, & Fire alarm systems
- Part of Mike Holt 2017 & 2020 exam preparations video team & certified instructors by his Curriculum.
- Voluntary member of UL standards technical panel for UL869A, UL67, UL1773, & UL98.

Chief Electrical inspector / plan examiner

Absolute Engineering

05/30/2016 - 01/01/2021

Private Provider

- Inspected all commercial, industrial, residential and public buildings, medical buildings, health care facilities, assisted living and elderly housing complexes.
- Reviewed and approved plans for electrical compliance with federal, state, & local codes. Monitored workmanship and recommended methods of improvements. Worked with engineers, consultants and lawyers to amend plans during the plan review process.
- Maintained detailed records and documentation of all site visits, inspections and violations.
- Calculate documents to improve operations and speed up turn-around times while working cooperatively to achieve excellent customer service.
- Administrative capabilities of leading an inspection team in efforts to cover construction deadlines.
- Attended meetings to discuss common grounds regarding electrical comments to engineering drawings

- Ability to interpret NEC codes & apply to practical applications out in the field
- Involved in different organizations such as IAEI, NFPA, BOAF, ICC in order to be informed on new standards
- Experience in large construction such as hi-rise buildings, multi-story residential, commercial build out improvements, schools, hospitals, and industrial motor – controls centers

Electrical plan examiner / Inspector

West Palm Beach – Municipal Support

04/20/2015- 5/23/2016

- Performed mathematical engineering computations to analyze electrical system.
- Reviewed and approved complex electrical plans and specs for compliance to NEC codes.
- Evaluate tests and data for suitability of electrical materials plus methods of construction installations.
- Respond to architects, engineers, contractors by scheduling conferences to interpret code issues and give recommendations for design professional problems
- Conduct field inspections using professional judgment and common sense for the intent of code enforcement.
- Inspected all commercial, industrial, residential and public buildings, medical buildings, health care facilities, assisted living and elderly housing complexes.
- Maintained detailed records and documentation of all site visits, inspections and violations & ensured compliance with appropriate federal, state and local codes.
- Investigated complaints, prepared and issued permits, certificates of occupancies, reports and maintained records of work performed. Issued violation notices and processed court appearances.
- Participated in inspector meetings relating to code changes and scheduled week hours in the absence of chief electrical inspector.

Project Manager / Estimator- MV Electrical Services

07/19/2012 - 03/11/2015

- Performed material takeoffs from blueprints, created material lists and contacted suppliers for pricing.
- Conducted pre-job walk-thru with customers and various subcontractors to discuss timelines and deadlines; attended weekly and monthly project meetings to update customer and various subcontractors on job progress.
- Supervised crews and handled manpower issues for multiple jobs being conducted simultaneously.
- Laid out day-to-day and/or week-to-week work duties for electricians.
- Produced quality engineering plans, ensuring compliance with department, project, company, utility, regional electrical entity and industry requirements and standards were met.
- Performed hands-on field work and troubleshooting of electrical systems in multifamily dwellings, commercial spaces and custom projects.
- Communicated with customers regarding change orders and how they affected the projects, and redistributed manpower accordingly keep projects within established deadlines.

Master Electrician- MV Electrical Services

05/02/2009 - 07/18/2012

- Connection of wires to transformers, circuit breakers, as well as other components.
- Fabrication and construction of parts, using hand tools and other specifics.
- Inspection of electrical equipment and systems to recognize defects, hazards and the requirement for repairs of modifications.
- Installation of ground leads and connection of power cables to various equipment.
- Replacement and repair of electrical wiring, fixtures, and equipment.
- Testing of circuit and electrical systems using devices including, voltmeters, ohmmeters, and oscilloscopes.
- Business management duties such as maintaining files and records.

Licenses

State Electrical Contractor

EC13005576

ICC and State of Florida License- BN6698

Standard Electrical Inspector

ICC and State of Florida License- PX3618

Electrical Plan Examiner

Education

CBT college

Associates Degree in Electrical Engineering.

In Progress

Mike Holt Electrical Apprenticeship Program

Master Exam Code preparation.

09/2012

Turner Tech community college

Electrical fundamentals and code.

01/2012

HML High School

High School Diploma.

06/2007



Mike Holt Enterprises, Inc.

888.NEC.CODE (632.2633) www.MikeHolt.com

Course Materials

1. Course References

- ♦ ***NEC Review: The seminar is based on and instructed from Mike Holt's Understanding Fundamental NEC Requirements (2023) Book and PowerPoint Presentation.***
 - ***I have included the Syllabus and Sample pages of the PowerPoints for your review***

2. All attendees will receive:

- ♦ **Booklet with Presentation slides and notes**
 - ***Included in cost of seminar***

3. All attendees are required to sign in at start of seminar and sign out at completion of seminar. The attendees are required to turn the form in to the staff to receive continuing education credit

4. Course Fees: \$250

Schedule of Course Dates and Locations

Date	Times	Location
May 4, 2024	8:00am – 5:00pm	Marriott Hotel, Coral Springs, Florida <i>11775 Heron Bay Blvd, Coral Springs, FL 33076</i>
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1

Introduction to Article 310—Conductors for General Wiring

- This article contains the general requirements for conductors such as their insulation markings, ampacity ratings, and conditions of use. It does not apply to conductors that are part of flexible cords, fixture wires, or to those that are an integral part of equipment [90.7 and 300.1(B)].

2

Introduction to Article 310—Conductors for General Wiring

- Some topics covered in this material include:
- Conductor size and material
- Insulation types
- Conductor identification and marking
- Conductor ampacity

3

Introduction to Article 310—Conductors for General Wiring

- Article 310 consists of three parts:
- Part I. General
- Part II. Construction Specifications
- Part III. Installation

4

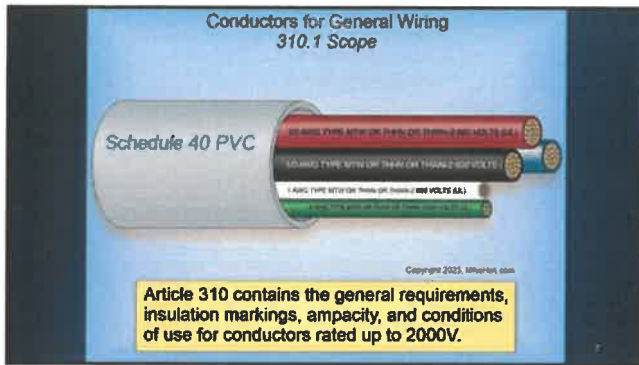
Part I. General

Scope 310.1

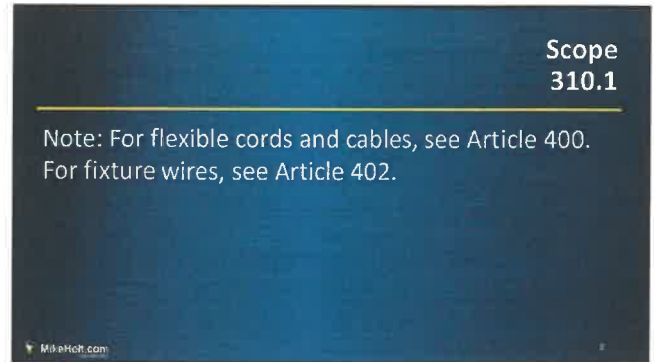
Article 310 contains the general requirements, insulation markings, ampacity, and conditions of use for conductors rated up to 2000V.

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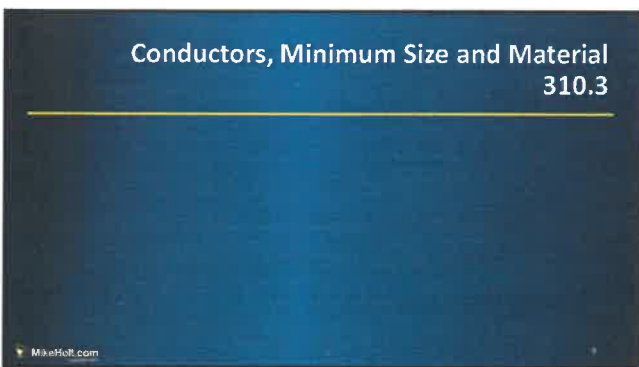
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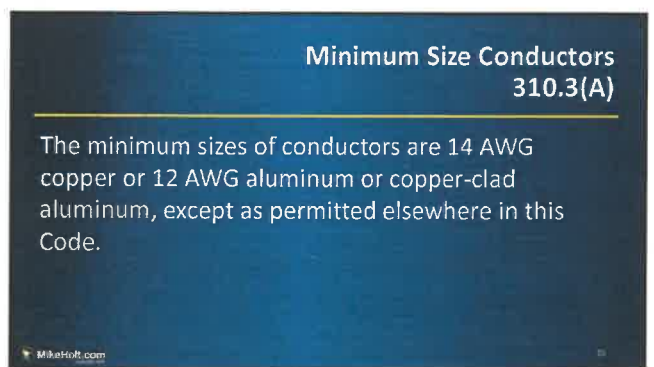
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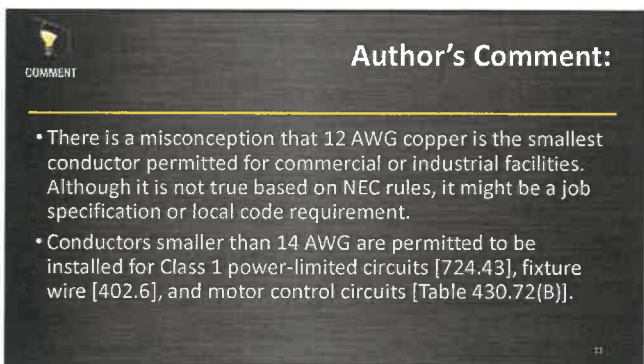
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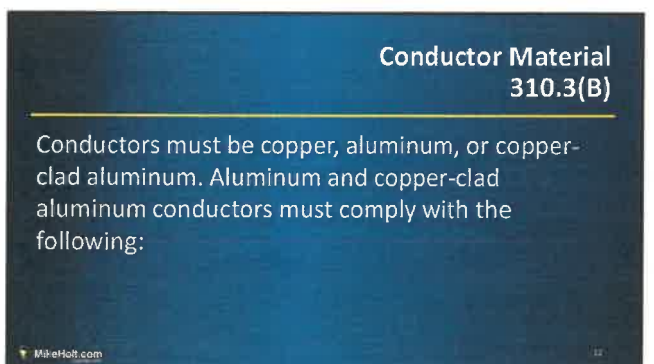
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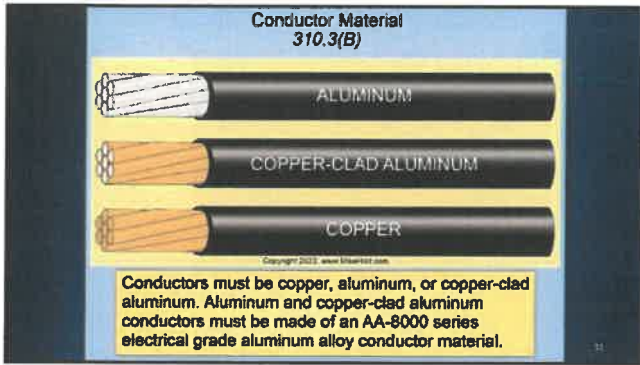
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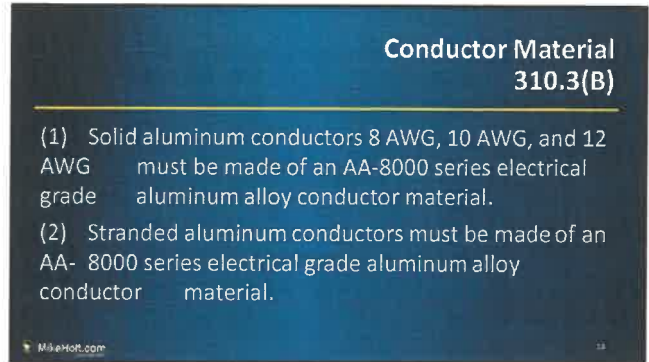
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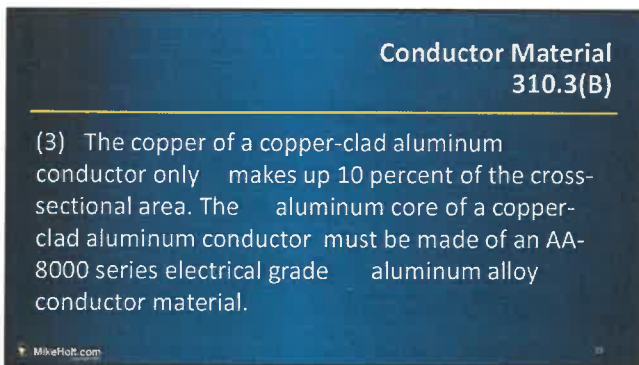
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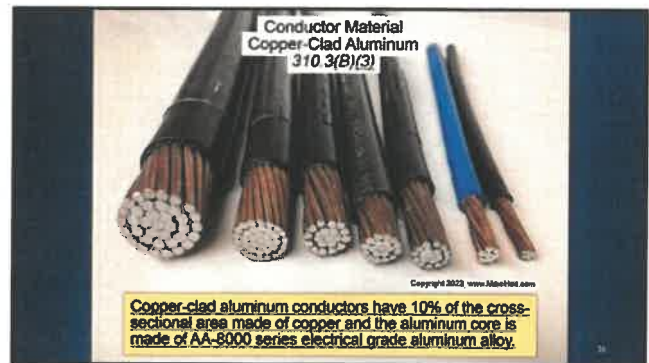
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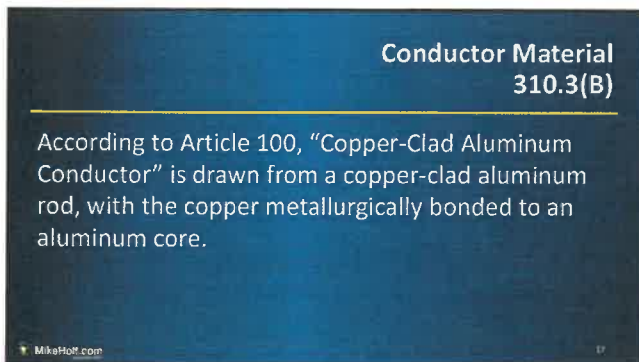
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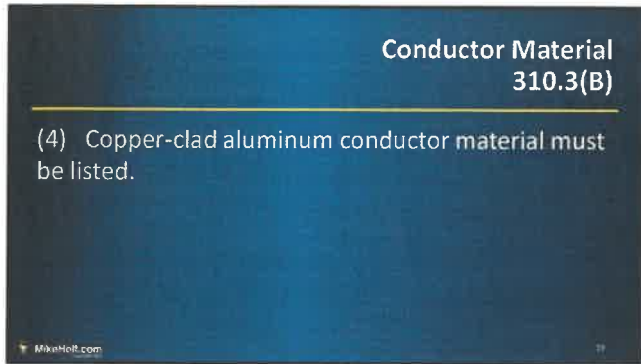
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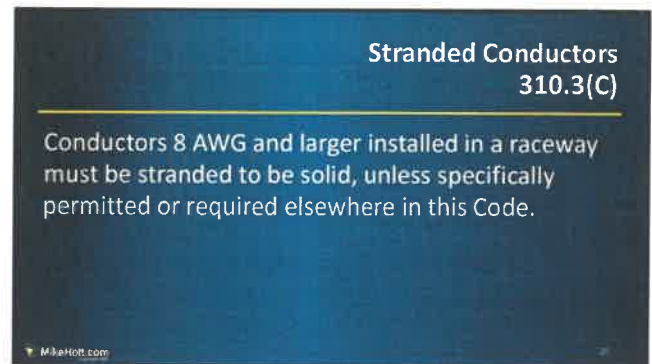
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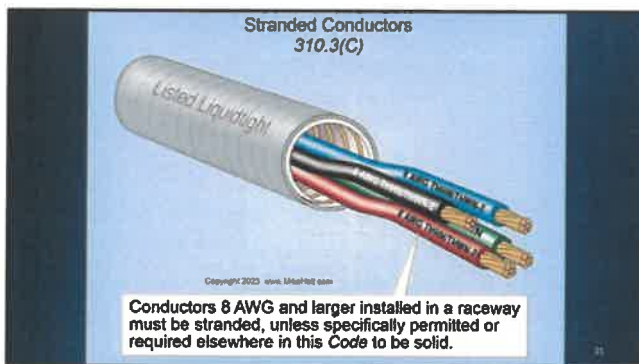
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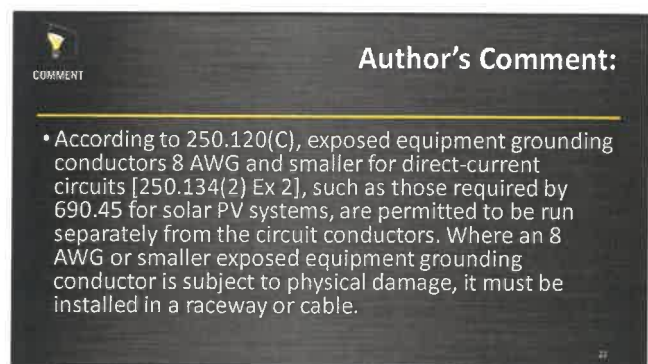
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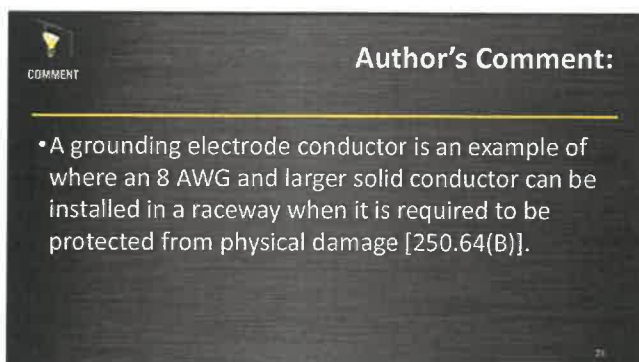
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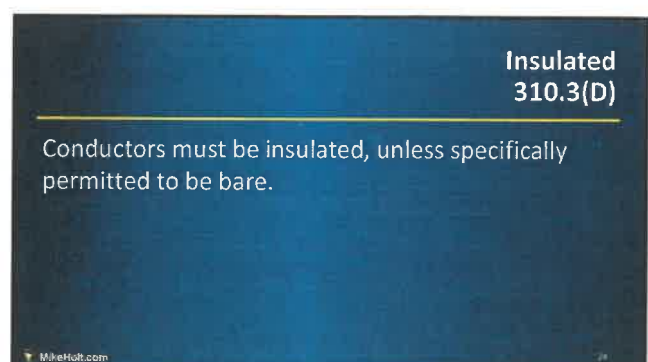
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Class Attendance Verification



Mike Holt Enterprises, Inc.
3604 Parkway Blvd., Ste. 3, Leesburg, FL 34748
Phone: 888.NEC.CODE (832-2633) | Fax: 352.360.0983
www.MikeHolt.com | info@MikeHolt.com

1. **Method of student attendance.** Students' attendance is monitored with sign-in and sign-out sheets that verify actual time spent in the course.
 - a. *The students' sign in form will be stamped by our check-in staff.*
 - b. *At the end of the class, the sign in forms are picked up by our staff. The students are handing them to us before they exit the class.*
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Sign-In and Sign-Out Admittance Pass

Business Skills & Changes to the NEC 2011 Seminar
June 29th—30th, 2012
Orlando, FL

To be held at:
Rosen Plaza Hotel
9700 International Drive
Orlando, Florida 32819
(407) 996-9700

**MHE SIGN
IN**

Name: _____ Licenses: _____
City/State: _____
Customer #: _____
Email: _____ Sign In: _____
Phone: _____ Sign Out: _____

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2. **Student Evaluation.** All students give feedback on courses through surveys and we are able to continue to enhance the program based on this consistent feedback. The evaluation form is shown below

NEC—Mike Holt

Rate from 1-10 (10=highest)

Why?

Was this topic relevant for you? Yes No Why?

What was the most important thing you learned?

What disappointed you?

How could the presentation be improved?

What concept was most difficult to grasp?

What was especially good about today's session?

Additional comments:

Overall 2-Day Seminar Evaluation

Facilities Did you attend the VIP Luncheon? Yes No

Lunch Day 1

Rate 1-10

Why?

Lunch Day 2

Rate 1-10

Why?

Did you stay at the hotel? Yes No

Rate the hotel 1-10

Comments:

Overall:

Rate this event from 1-10 (10=highest)

Why?

How can we improve?

Final Thoughts:

Can we use your feedback in our marketing? Yes No

Name:

Company:

CERTIFICATE OF COMPLETION

Mike Holt Enterprises hereby certifies that

Sample Student

Student State & License Number

has successfully completed the

Title of Course

Date and Location

Additional Notes



Course Hours:
Final Result:
Certificate ID:
State Approval Code:

Charles "Mike" Holt, Sr.
Certified Instructor

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