

Agenda

Presented by Rick Chambers

Goals & Objectives, Errata & New Features, Types of Changes, Article 90 – Changes in the Scope

Chapter 1, General; Chapter 2, Wiring and Protection

Definitions	Installation of cables and conductors
Marking requirements for disconnects	Working space requirements
GFCI requirements for dwellings	Iowa amendments
New GFCI and AFCI requirements for non-dwellings	Load calculations
Receptacle spacing rules	
GFCI and GFP requirements for feeders	
Surge protection and outdoor emergency disconnect for dwellings	
New restriction on number of main disconnects	
New Article 242, Overvoltage Protection (replaces Articles 280 and 285)	
New requirements and restrictions on grounding and bonding of services and equipment	

Chapter 3, Wiring Methods and Materials

Clarification of IMC, RMC, and EMT use	New Article 337, Type P Cable
Extensive reorganization of Article 310	Multioutlet assemblies
New Article 311, Medium Voltage Cable	Cable tray installation
New requirements for boxes, box fill, and cable support	

Chapter 4, Equipment for General Use

Switches and receptacles	Appliances
Panelboard installations	Motors
Fault current marking	AC and refrigeration equipment
Luminaires	Generators

Chapter 5, Special Occupancies

Hazardous locations	Aircraft hangers
Commercial garages	Health care facilities
Temporary Installations	

Chapter 6, Special Equipment

Signs	New rules for elevator pit receptacles and sump pumps
Electrical vehicle power transfer systems	
New requirement for IT room underfloor cables	
New requirements for pools and fountains	
Natural and artificially made bodies of water	
Fuel cells	Solar PV systems
Fire pumps	

Chapter 7, Special Conditions

Emergency and standby systems	Critical operations power systems
Interconnected power production systems	DC microgrids
Energy storage systems	
Class 1, 2, & 3 remote control and signaling	
Fire alarm systems	Optical fiber cables

Chapter 8, Communications Systems

New Article 800, General Requirements for Communications Systems

Chapter 9, Tables and Annexes

2020 National Electrical Code Update for Iowa

Live, Interactive Webinar - Wednesday, August 18, 2021

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Learning Objectives

You'll be able to:

Explore the goals and objectives of the 2020 National Electrical Code, and discuss Article 90 concerning changes in scope of the Code.

Comply with new requirements on wiring and protection, including new GFCI and AFCI requirements.

Meet requirements for wiring methods and materials, and discuss provisions on boxes, box fill and cable support.

Explore code provisions on equipment for general use.

Comply with code provisions on special equipment, including signs, electric vehicle power systems, IT rooms, and solar photovoltaic systems.

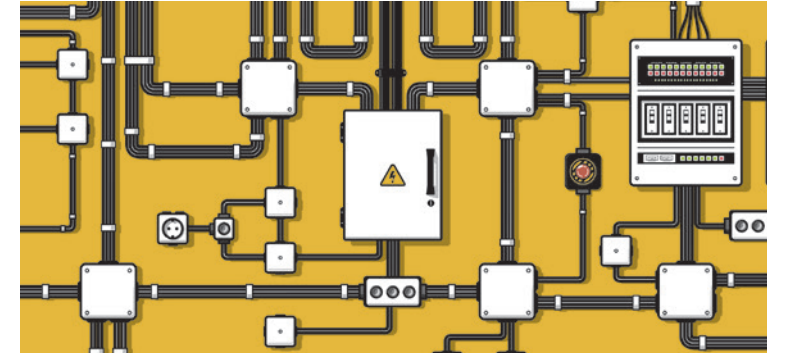
Examine requirements for emergency and standby systems, as well as fire alarm systems.



HalfMoon Education Online Learning

2020 National Electrical Code Update for Iowa

Live, Interactive Webinar - Wednesday, August 18, 2021



Examine changes in the 2020 National Electrical Code, including Iowa amendments

Explore New Article 242, on overvoltage protection

Study wiring, methods and materials including New Article 311, on medium voltage cable

Review requirements for special occupancies, including health care facilities

Learn about new requirements for pools and fountains

Discuss New Article 800, on general requirements for communications systems

Continuing Education Credits

Professional Engineers

7.0 PDHs

Architects

7.0 HSW CE Hours

AIA

7.0 LU|HSW

International Code Council

.7 CEUs (Electrical)

Iowa Electrical Examining Board

7.0 CEUs (7.0 Code Hours)

AIA
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Faculty

Rick Chambers *Chambers Electric, Inc., Iowa City, IA*
Mr. Chambers is a State of Iowa Electrical Examining Board Approved Instructor and a licensed Class A master electrician with more than 45 years of experience in all areas of the trade. Teaching is one of his greatest passions and he loves passing on knowledge and skills to others. Mr. Chambers taught electrical apprentices for the Associated Builders and Contractors of Iowa for 30 years. He currently teaches classes on the National Electrical Code Update, license exam preparation, grounding and bonding, electrical theory, electric motors, transformers, motor controls, health care facilities wiring, troubleshooting, residential wiring, commercial and industrial wiring, agricultural wiring, ampacity calculations, conduit and box sizing calculations, voltage drop calculations, commercial service calculations, overcurrent protection, the NEC for PV installers, swimming pool wiring, and arc flash safety. Mr. Chambers has taught classes for seven Iowa community colleges, many Iowa industries, the University of Iowa, UI Hospitals and Clinics, the VA Medical Center, and private classes for electrical contractors. He is also a past president and the current membership chair of the International Association of Electrical Inspectors, Iowa Chapter. On an unrelated note, Mr. Chambers is a two-time inductee into the Iowa Rock-and-Roll Hall of Fame.

Webinar Information

Log into Webinar 8:00 - 8:30 am CDT	Break 12:30 - 1:30 pm CDT
Morning Session 8:30 am - 12:30 pm CDT	Afternoon Session 1:30 - 5:00 pm CDT

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Additional Learning

Sustainable Site Design - Wed, June 30, 2021 8:30 am - 3:50 pm CDT	Understanding and Working with Urban Soils - Fri, July 23, 2021 8:30 - 10:30 am CDT
Estimating Plumbing and HVAC Costs - Fri, July 9, 2021 8:30 am - 4:30 pm CDT	Site Design - Mon, July 26, 2021 8:30 am - 5:00 pm CDT
Street Maintenance and Traffic Operations - Thurs, July 15, 2021 11:00 am - 2:30 pm CDT - Fri, July 16, 2021 11:00 am - 2:30 pm CDT	Structural Forensic Engineering - Tues, July 27, 2021 11:00 am - 2:30 pm CDT - Wed, July 28, 2021 11:00 am - 2:30 pm CDT
Universal Residential Design - Thurs, July 15, 2021 8:30 am - 4:30 pm CDT	Architectural Application for Means of Egress in 2018 IBC - Wed, July 28, 2021 9:00 am - 4:30 pm CDT
2021 International Residential Code: Residential Electrical Systems - Fri, July 16, 2021, 11:00 am - 3:30 pm CDT	Project Management for Engineers - Wed, July 28, 2021 8:30 am - 4:30 pm CDT
High-Performance Building Envelopes - Wed, July 21, 2021 11:00 am - 2:45 pm CDT - Thurs, July 22, 2021 11:00 am - 2:45 pm CDT	2018 IBC Mixed Occupancies, Allowable Area, and Type of Construction - Thurs, July 29, 2021 8:30 am - 5:00 pm CDT
Technical Writing Workshop for Design Professionals - Fri, July 23, 2021 8:30 am - 5:00 pm CDT	For more information and other online learning opportunities visit: www.halfmoonseminars.org

Continuing Education Credit Information
This webinar offers 7.0 PDHs to professional engineers and 7.0 HSW continuing education hours to architects licensed in Iowa. Educators and courses are not subject to preapproval in Iowa.
The American Institute of Architects Continuing Education System has approved this course for 7.0 LU | HSW (Sponsor No. J885). Only full participation is reportable to the AIA/CES.
The International Code Council has approved this event for .65 CEUs in the specialty area of Electrical (Preferred Provider No. 1232).
The Iowa Electrical Examining Board has approved this course for 7.0 CEUs (7.0 Code Hours) for Iowa-Licensed Master/Journeyman Electricians, as sponsored by the instructor, Richard Chambers, an Approved Instructor in Iowa.
Completion certificates will be awarded to participants who complete this event, respond to all prompts, and earn a passing score (80%) on the quiz that follows the presentation (multiple attempts allowed).

Registration

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