

Agenda

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

Chapter 1, General

Definitions	Installation of cables and conductors
Marking requirements for disconnects	Working space requirements

Chapter 2, Wiring and Protection

GFCI requirements for dwellings and non-dwellings	
New AFCI requirements for non-dwellings	Restrictions on reconditioning of equipment
Receptacle spacing rules	Load calculations
Expansion of barrier requirements	Surge protection for dwellings
New restriction on number of main disconnects	
Outdoor emergency disconnect for dwellings	New Article 242, Overvoltage Protection
New requirements and restrictions on grounding and bonding of services and equipment	
Grounding and bonding of metal piping systems and metal building frames	

Chapter 3, Wiring Methods and Materials

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

Chapter 4, Equipment for General Use

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

Chapter 5, Special Occupancies

Hazardous locations	Commercial garages
Motor fuel dispensing facilities	Aircraft hangers
Health care facilities	Assembly occupancies
Carnivals, circuses, and fairs	Agricultural buildings
Mobile and manufactured homes	Boatyards, marinas, and floating buildings
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	Bonding for fountains
Natural and artificially made bodies of water	Solar PV systems
Fuel cells	Fire pumps

Chapter 7, Special Conditions

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

Chapter 8, Communications Systems

New Article 800, General Requirements for Communications Systems
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Chapter 9, Tables and Annexes

2020 National Electrical Code Update

Live, Interactive Webinar - Friday, May 6, 2022

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Learning Objectives

You'll be able to:

Review goals and objectives of the National Electrical Code, and explore articles and rules that are new in the 2020 Code.

Discuss GFCI requirements for dwellings and non-dwellings, as well as new AFCI requirements for non-dwellings.

Explore changes in Chapter 3 on wiring methods and materials, including new requirements for boxes, box fill and cable support.

Examine Chapter 4 on equipment for general use, including switches, receptacles, appliances, luminaires and panelboard installations.

Comply with requirements for special occupancies such as hazardous locations, mobile homes, commercial garages and agricultural buildings.

Meet requirements for special equipment, including elevators, pools, and renewable energy systems.

Discuss requirements for fire alarm systems and communications systems.



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Examine changes in the 2020 National Electrical Code

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

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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.

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