Course Name	2023 NEC Changes Part 1
Credit Hours	8 Hours
Instructor(s)	Jerry Durham
Fee	$85.00
Reference Materials	NFPA 70 National Electrical Code 2023 Edition

Course Description

This online course reviews the first 100 of the most important changes to the 2023 National Electrical Code. Changes from Section 100 through Section 406 will be covered.

Learning Objectives

At the completion of the course, licensees will be able to:

- Describe the overall layout of the National Electrical Code and the addition of new articles.
- Identify the scope of what is covered and not covered in the Code.
- List which chapters can supplement or modify other chapters.
- Identify updates, additions, and changes to Chapter 1 of the 2023 National Electrical Code.
- Describe changes in the way terms are presented in Article 100, *Definitions*.
- Define 12 terms that are newly defined in the 2023 NEC.
- Outline changes to the general requirements for electrical installations found in Chapter 110 of the 2023 NEC.
- Identify updates, additions, and changes to Chapter 2 of the 2023 National Electrical Code.
- Describe changes for branch circuits found in Chapter 2 of the 2023 NEC.
- Identify changes to branch-circuit requirements as summarized in Tables 210.24(1) and 210.24(2).
- Outline new requirements covering barriers and surge protection for feeders found in Chapter 2 of the 2023 NEC.
- Identify changes to branch-circuit, feeder, and service load calculations found in Chapter 2 of the 2023 NEC.
- List new requirements in Chapter 2 of the 2023 NEC for health care facilities, electric vehicle charging stations, marinas, and docking facilities.
- Identify the changes to minimum unit load requirements for dwelling units and lighting loads for non-dwelling occupancies found in Chapter 2 of the 2023 NEC.
- Describe changes to emergency disconnects and surge protection for outside branch circuits and feeders found in Chapter 2 of the 2023 NEC.

- Outline the new wiring method for installing underground service conductors.
- List the locations that must be provided with surge protection devices.
- Identify changes for service conductors and service installation requirements found in Chapter 2 of the 2023 NEC.
- Outline the new declaration regarding standard overcurrent device ratings found in Chapter 2 of the 2023 NEC.
- Identify changes to the standard ampere ratings in Table 240.6(A).
- Describe the new requirement that surge protection devices indicate they are functioning properly.
- Summarize the new requirements for overcurrent protection requirements for systems over 1000 volts ac, 1500 volts dc in Article 245.
- Identify the new requirements for grounding and bonding in Chapter 2 of the 2023 NEC.
- Identify updates, additions, and changes to Chapter 3 of the 2023 National Electrical Code.
- Summarize the general requirements for wiring methods and materials for systems rated over 1000 volts ac, 1500 volts dc covered in Article 305.
- Describe changes and additions to the exceptions for cables, raceways, or boxes installed in or under metal-corrugated roof decking found in Chapter 3 of the 2023 NEC.
- Outline new requirements for installing screws and other fasteners in cabinets, cutout boxes, and meter socket enclosures found in Chapter 3 of the 2023 NEC.
- Identify additions and changes to requirements for outlet boxes, underground boxes, and handhole enclosures found in Chapter 3 of the 2023 NEC.
- Outline new requirements for insulated bus pipe and flexible bus systems found in Chapter 3 of the 2023 NEC.
- List changes to uses permitted and not permitted for nonmetallic-sheathed cable.
- Identify changed requirements for use and installation of rigid polyvinyl chloride conduit (PVC) found in Chapter 3 of the 2023 NEC.
- Identify updates, additions, and changes to Chapter 4 of the 2023 National Electrical Code.
- Describe the change in scope to Chapter 4 of the 2023 NEC.
- Identify changes and additions to requirements for switches found in Chapter 4 of the 2023 NEC.

Equipment Requirements

You must have an active, working internet connection to access this course online, as well as a platform to access the internet, such as a computer, tablet, or phone. All popular web browsers are supported, including Google Chrome, Mozilla Firefox, Safari, and Opera. No specialized software, speaker, microphone, or web camera is required.

Schedule and Location

This course is available online at any time at www.TradesmanCE.com. Upon enrolling in the course, students will have access for 365 days or until the agency-issued course expiration date, whichever comes first. After the access expiration date, the student may re-activate their course

if the course approval has not expired. If they do not re-activate, the course will be removed from the student's account and any progress in the course will be lost. Before the access expiration date, the student may sign in and out of the course as many times as needed to complete the course.

Student Support

Both general and technical support is available to the student before, during, and after taking the course online. Students have access to general customer support via phone, chat, and email. Students have access to the course instructor via email. All questions, concerns, and comments received will be responded to within one business day.

Participation/Interactivity Verification

Timed Logs - Per our company's record retention policy, each student's every log-in, log-out, and lesson/assessment completion time is tracked and retained as part of the student record.

Review Questions - After each section of text, students must answer a review question. Students cannot progress in the course until the question between sections has been answered correctly.

Global Timer - Students will not get credit until they spend a minimum of 400 active minutes total in the course.

Identity Verification

Unique Username/Password - Each student that wants to complete a training course with us must create and account by registering a unique personal email address and password. The student must enter this unique identifier every time they take a break from the course.

Assessment Details

Review Questions - The licensee must complete all multiple-choice questions between sections correctly to get credit for the course. If their first response is incorrect, students will have to try again until they choose the correct answer. Question choices are randomized so each participant will have a unique testing experience. This course is set up to allow users to go back through the section questions and re-answer questions while they meet the time requirement.

2023 NEC Changes Part 1 Timed Syllabus

Section	Title	Questions	Minutes
Chapter 1			
1	100. Definitions. Scope.	**1**	**5**
2	Definitions. Attachment Fitting, Weight-Supporting (WSAF) and Receptacle, Weight Supporting Ceiling (WSCR).	**1**	**5**
3	Definitions. Class 4 Circuit, Class 4 Device, Class 4 Power System, Class 4 Receiver, Class 4 Transmitter, Class 4 Utilization Equipment.	**1**	**5**
4	Definitions. Cord Connector.	**1**	**5**
5	Definitions. Counter (Countertop).	**1**	**5**
6	Definitions. Ground Fault Circuit Interrupter, Special Purpose.	**1**	**5**
7	Definitions. Ground-Fault Detector-Interruptor, dc (GFDI).	**1**	**5**
8	Definitions. Grounded Conductor, Impedance.	**1**	**5**
9	Definitions. Grounded System, Impedance.	**1**	**5**
10	Definitions. Panelboard, Enclosed. (Enclosed Panelboard).	**1**	**5**
11	Definitions. Restricted Industrial Establishment	**1**	**5**
12	Definitions. Stored Energy Power Supply System (SEPSS).	**1**	**5**
13	Definitions. Work Surface.	**1**	**5**
14	110.3(A)(8) Cybersecurity.	**1**	**5**
15	110.3(B) Installation and Use.	**1**	**5**
16	110.16(B) Service Equipment and Feeder Supplied Equipment.	**1**	**5**
17	110.17 Servicing and Maintenance of Equipment.	**1**	**5**
18	110.20 Reconditioned Equipment.	**1**	**5**
19	110.26 Spaces About Electrical Equipment.	**1**	**5**
20	110.26(A)(6) Grade, Floor, or Working Platform.	**1**	**5**
21	110.29 In Sight From (Within Sight From, Within Sight).	**1**	**5**
22	110.33(A) Entrance to Enclosure and Access to Working Space. Entrance.	**1**	**5**
Chapter 2			
23	Article 210, Branch Circuits Not Over 1000 Volts ac, 1500 Volts dc, Nominal.	**1**	**5**
24	210.2 Reconditioned Equipment.	**1**	**5**
25	210.5(C)(1) Branch Circuits Supplied from More than One Nominal Voltage System.	**1**	**5**
26	210.8(A)(5) Dwelling Units. Basements.	**1**	**5**
27	210.8(A)(6) Dwelling Units. Kitchens.	**1**	**5**
28	210.8(A)(7) Dwelling Units. Areas with Sinks.	**1**	**5**
29	210.8(B)(1-15) GFCI Protection for Personnel. Other than Dwelling Units.	**1**	**5**
30	210.8(B) GFCI Protection for Personnel. Other Than Dwelling Units. Exceptions.	**1**	**5**
31	210.8(D) GFCI Protection for Personnel. Specific Appliances.	**1**	**5**
32	210.8(F) Outdoor Outlets.	**1**	**5**
33	210.11(C)(4) Dwelling Units. Garage Branch Circuits.	**1**	**5**
34	210.12 Arc-Fault Circuit-Interrupter Protection.	**1**	**5**
35	210.17 Guest Rooms and Guest Suites.	**1**	**5**
36	210.18 Branch-Circuit Ratings. Rating.	**1**	**5**
37	210.23 Permissible Loads, Multiple-Outlet Branch Circuits.	**1**	**5**
38	Table 210.24(1) Summary of Branch-Circuit Requirements- Copper Conductors.	**1**	**5**
39	210.52(A)(2) Wall Space.	**1**	**5**
40	210.52(C)(1) Countertops and Work Surfaces. Wall Spaces.	**1**	**5**
41	210.52(C)(2) Countertops and Work Surfaces. Island and Peninsular Countertops and Work Surfaces.	**1**	**5**
42	210.52(C)(3). Receptacle Outlet Locations.	**1**	**5**
43	210.52(D) Bathrooms.	**1**	**5**
44	210.70 Lighting Outlets Required.	**1**	**5**
45	210.70(A)(1),(2) Dwelling Units. Additional Locations.	**1**	**5**

46	215.15 Barriers.	**1**	**5**
47	215.18 Surge Protection.	**1**	**5**
48	220.41 Dwelling Unit(s), Minimum Unit Load.	**1**	**5**
49	220.42 Lighting Load for Non-Dwelling Occupancies.	**1**	**5**
50	220.57 Electric Vehicle Supply Equipment (EVSE) Load.	**1**	**5**
51	220.110 Receptacle Loads.	**1**	**5**
52	220.120 Receptacle Loads.	**1**	**5**
53	Article 225, Outside Branch Circuits and Feeders.	**1**	**5**
54	225.41 Emergency Disconnects.	**1**	**5**
55	225.42 Surge Protection.	**1**	**5**
56	230.7 Other Conductors.	**1**	**5**
57	230.24(A) Above Roofs.	**1**	**5**
58	230.30(B) Wiring Methods.	**1**	**5**
59	230.62(C) Barriers.	**1**	**5**
60	230.67 Surge Protection.	**1**	**5**
61	230.71(B) Two to Six Service Disconnecting Means.	**1**	**5**
62	230.85 Emergency Disconnects.	**1**	**5**
63	Article 235, Branch Circuits, Feeders, and Services Over 1000 Volts ac, 1500 Volts dc, nominal.	**1**	**5**
64	240.4(B) Overcurrent Devices Rated 800 Amperes or Less.	**1**	**5**
65	Table 240.6(A) Standard Ampere Ratings for Fuses and Inverse Time Circuit Breakers.	**1**	**5**
66	242.9 Indicating.	**1**	**5**
67	Article 245, Overcurrent Protection for Systems Rated Over 1000 Volts ac, 1500 volts dc.	**1**	**5**
68	250.64(G) Enclosures with Ventilation Openings.	**1**	**5**
69	250.68(C) Grounding Electrode Conductor Connections.	**1**	**5**
70	250.118 Types of Equipment Grounding Conductors.	**1**	**5**
71	250.130 Equipment Grounding Conductor Connections.	**1**	**5**
72	250.130(C) Replacement of Nongrounding Receptacle or Snap Switch and Branch Circuit Extensions.	**1**	**5**
73	250.140 Frames of Ranges and Clothes Dryers.	**1**	**5**
74	250.148 Continuity of Equipment Grounding Conductors and Attachment in Boxes.	**1**	**5**
75	250.186 Grounding Service-Supplied Alternating-Current Systems.	**1**	**5**
Chapter 3			
76	300.4(E) Cables, Raceways, or Boxes Installed in or Under Metal-Corrugated Roof Decking.	**1**	**5**
77	Table 300.5(A) Minimum Cover Requirements.	**1**	**5**
78	Article 305, General Requirements for Wiring Methods and Materials for Systems Rated Over 1000 volts ac, 1500 volts dc, Nominal.	**1**	**5**
79	310.15(B)(2) Rooftop.	**1**	**5**
80	312.10 Screws or Other Fasteners.	**1**	**5**
81	314.27(E) Weight-Supporting Ceiling Receptacles and Weight-Supporting Attachment Fittings.	**1**	**5**
82	314.29(B) Underground.	**1**	**5**
83	334.10 Uses Permitted.	**1**	**5**
84	334.15(B) Protection from Physical Damage	**1**	**5**
85	334.40(B) Boxes and Fittings.	**1**	**5**
86	344.28 Reaming and Threading	**1**	**5**
87	352.10 Uses Permitted.	**1**	**5**
88	352.44 Expansion Fittings.	**1**	**5**
89	Article 369, Insulated Bus Pipe (IBP)/ Tubular Covered Conductors (TCC) Systems.	**1**	**5**
90	Article 371, Flexible Bus Systems.	**1**	**5**
Chapter 4			
91	404.1 Scope.	**1**	**5**
92	404.2(C) Switches Controlling Lighting Loads.	**1**	**5**
93	404.14(D) Snap Switch Terminations.	**1**	**5**
94	404.16 Reconditioned Equipment.	**1**	**5**

95	404.30 Switch Enclosures with Doors.	**1**	**5**
96	406.3(D) Receptacle Terminations.	**1**	**5**
97	406.4(G) Protection of Floor Receptacles.	**1**	**5**
98	406.6(D) Receptacle Faceplate (Cover Plates) with Integral Night Light and/or USB Charger.	**1**	**5**
99	406.9(A),(B) Damp Locations, Wet Locations.	**1**	**5**
100	406.9(C) Bathtub and Shower Space.	**1**	**5**
	Totals:	**100**	**500**
	Student Minimum Time Required:		**400**