

4 Hours For 2024 License Renewal - Grounding and Bonding (Course Outline) (Timed)

	NEC Code Section	NEC Subject Topic	Time (Minutes)
1		NEC Article 250	4
2	Article 100	Grounded.	4
3	Article 100	Article 100 Definitions. Grounded Conductor.	4
4	Article 100	Grounded Conductor.	4
5	Article 100	Grounding Versus Bonding.	4
6	Article 100	Equipment Grounding Conductors.	4
7	Article 100	Bonding Jumper, Main.	4
8	Article 100	Bonding Jumper, Supply-Side.	4
9	250.12	Clean Surfaces.	4
10	250.24(B)	Load-Side Grounding Connections.	4
11	250.25	250.25 Grounding of Systems Permitted to Be Connected on the Supply Side of the Service Disconnect.	4
12	250.28(A)	Main Bonding Jumper and System Bonding Jumper. Material.	4
13	250.30	Grounding Separately Derived Alternating-Current Systems.	4
14	250.30(A)(4)&(5)	Grounding Separately Derived Alternating-Current Systems.	5
15	250.30(A)(6)	Grounding Electrode Conductor, Multiple Separately Derived Systems.	6
16	250.52	Electrodes Permitted for Grounding.	4
17	250.52(A)(2)	Metal In-ground Support Structure(s).	4
18	250.52(B)	Not Permitted for Use as Grounding Electrodes.	4
19	250.53(C)	Bonding Jumper.	6
20	250.64(A)	Aluminum or Copper-Clad Aluminum Conductors.	4
21	250.64(B)	Securing and Protection Against Physical Damage.	4
22	250.64(B)(2) and (3)	Exposed to Physical Damage.	4
23	250.64(D)(1)(3)	Building or Structure with Multiple Disconnecting Means in Separate Enclosures. Common Grounding Electrode Conductor and Taps.	6
24	250.64(E)	Raceways, Cable Armor, and Enclosures for Grounding Electrode Conductors	3
25	250.66(A)	Size of Alternating-Current Grounding Electrode Conductor.	3
26	Table 250.66	Grounding Electrode Conductor for Alternating-Current Systems	3
27	250.68(C)(1)	Grounding Electrode Conductor Connections. Interior metal water piping.	4
28	250.68(C)(2)	Grounding Electrode Conductor Connections. Metal structural building frame.	4
29	250.68(C)(3)	Grounding Electrode Conductor Connections.	4
30	250.70	Methods of Grounding and Bonding Conductor Connection to Electrodes.	4
31	250.80	Service Raceways and Enclosures.	4
32	250.86	Other Conductor Enclosures and Raceways.	4
33	250.94	Bonding for Communications Systems.	4
34	250.102(A)	Grounded Conductor, Bonding Conductors, and Jumpers.	4
35	250.102(C)(1)	Table 250.102(C)(1). Grounded Conductor, Main Bonding Jumper, System Bonding Jumper, and Supply-Side Bonding Jumper for Alternating-Current Systems.	5
36	250.104(A)	Metal Water Piping.	5
37	250.104(B)	Bonding of Piping Systems and Exposed Structural Metal. Other Metal Piping.	5
38	250.109	Metal Enclosures.	5
39	250.118(A)(5)(e)	250.118 Types of Equipment Grounding Conductors.	2
40	250.118(B)	Uses Not Permitted for Equipment Grounding Conductors.	2
41	250.119	Identification of Wire-Type Equipment Grounding Conductors.	2
42	250.12	Table 250.122.	8
43	250.122(F)	Size of Equipment Grounding Conductors. Conductors in Parallel.	3
44	250.130(C)	Replacement of Nongrounding Receptacle or Snap Switch and Branch Circuit Extensions.	3
45	250.148	Continuity of Equipment Grounding Conductors and Attachment in Boxes.	3
46	250.166	Size of the Direct-Current Grounding Electrode Conductor.	3
47	250.186	Grounding Service-Supplied Alternating Current Systems.	3
48	440.9	Grounding and Bonding.	4
49	680.7(C)	Grounding and Bonding Terminals.	4
50	680.26(B)(2)	Perimeter Surfaces.	4
Total Time (In minutes):			201
UT 4 Hours Time Requirement			4 Hours (200 Minutes)

