

## 2019 - 2020 5th Year Syllabus and Schedule

Test Date: <u>9/11/2019</u>		Transformers		Level	II	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date Covered	Homework Due Date	
1	Reactors and Isolation Transformers	Transformers Textbook	Lesson 1	8/19/2019	8/21/2019	
2	Autotransformers	Transformers Textbook	Lesson 2	8/21/2019	8/26/2019	
3	Buck-Boost Transformers	Transformers Textbook	Lesson 3	8/26/2019	8/28/2019	
4	Understanding Transformer Overcurrent Protection	Transformers Textbook	Lesson 4	8/28/2019	9/9/2019	
5	Transformer Overcurrent Protection with associated tap rules	Transformers Textbook	Lesson 5	9/9/2019	9/11/2019	

Test Date: <u>9/30/2019</u>		Transformers		Level	III	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date Covered	Homework Due Date	
6	Electrical Safety	Transformers Textbook	Lesson 1	9/11/2019	9/16/2019	
7	Special Transformers	Transformers Textbook	Lesson 2	9/16/2019	9/18/2019	
8	Special Connections	Transformers Textbook	Lesson 3	9/18/2019	9/23/2019	
9	Selection and Installation	Transformers Textbook	Lesson 4	9/23/2019	9/25/2019	
10	Maintenance and Troubleshooting	Transformers Textbook	Lesson 5	9/25/2019	9/30/2019	

Test Date: <u>10/28/2019</u>		Motor Control		Level	II	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date	
11	Basic Electronics for Motor Control Devices	Motor Control (J209.H)	Lesson 10	9/30/2019	10/2/2019	
12	More Electronics for Motor Control Devices	Motor Control (J209.H)	Lesson 11	10/2/2019	10/7/2019	
13	Solid-State Motor Control Pilot Devices	Motor Control (J209.H)	Lesson 12	10/7/2019	10/9/2019	
14	Solid-State Relays	Motor Control (J209.H)	Lesson 13	10/7/2019	10/9/2019	
15	Motor Control Centers	Motor Control (J209.H)	Lesson 14	10/9/2019	10/14/2019	
16	Special Purpose Starters	Motor Control (J209.H)	Lesson 15	10/14/2019	10/16/2019	
17	Electronic Programmable Timers	Motor Control (J209.H)	Lesson 16	10/16/2019	10/21/2019	
18	Special Control Components	Motor Control (J209.H)	Lesson 17	10/21/2019	10/23/2019	
19	AC Motor Speed Control	Motor Control (J209.H)	Lesson 18	10/23/2019	10/28/2019	

Test Date: <u>12/11/2019</u>		Motor Control		Level	III	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date	
20	DC Motor Control	Motor Control (J209.H)	Lesson 19	11/4/2019	11/6/2019	
21	Understanding Analog Signals	Motor Control (J209.H)	Lesson 20	11/6/2019	11/11/2019	
22	Analog Pilot Devices	Motor Control (J209.H)	Lesson 21	11/6/2019	11/11/2019	
23	Working With Solid-State Devices in Motor Control	Motor Control (J209.H)	Lesson 22	11/11/2019	11/13/2019	
24	Variable Frequency Drives	Motor Control (J209.H)	Lesson 23	11/13/2019	12/9/2019	
25	Programmable Logic Controllers	Motor Control (J209.H)	Lesson 24	11/18/2019	12/9/2019	
26	Controlling Synchronous, Stepper, and Servo Motors	Motor Control (J209.H)	Lesson 25	11/20/2019	12/9/2019	
27	Networked Motor Control	Motor Control (J209.H)	Lesson 26	12/9/2019	12/9/2019	
28	Troubleshooting Electrical Systems	Motor Control (J209.H)	Lesson 27	12/9/2019	12/11/2019	

Test Date: <u>2/3/2020</u>		Code Calculations		Level	II	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date	
29	Determining Conductor Ampacity	Code Calculations (J227.I)	Lesson 2	1/6/2020	1/13/2020	
30	Finalizing Ampacity Calculations	Code Calculations (J227.I)	Lesson 3	1/8/2020	1/13/2020	
31	Performing Box Size and Fill Calculations	Code Calculations (J227.I)	Lesson 5	1/13/2020	1/15/2020	
32	Calculating Raceway Fill	Code Calculations (J227.I)	Lesson 6	1/15/2020	1/20/2020	
33	Introduction to Electrical Load Calculations	Code Calculations (J227.I)	Lesson 12	1/20/2020	1/22/2020	
34	Range and Appliance Calculations	Code Calculations (J227.I)	Lesson 13	1/22/2020	1/27/2020	
35	Calculating the Parameters of Multifamily Dwelling Loads in Accordance with the NEC	Code Calculations (J227.I)	Lesson 15	1/27/2020	1/29/2020	
36	Calculating the Parameter of Commercial Loads in Accordance with the NEC	Code Calculations (J227.I)	Lesson 16	1/29/2020	2/3/2020	

Test Date: <u>4/8/2020</u>		PLC		Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date	
37	PLC and Electrical Safety	Programmable Logic Controllers (J237.H)	Lesson 1	2/5/2020	2/10/2020	
38	Electrical Principles and PLCs	Programmable Logic Controllers (J237.H)	Lesson 2	2/10/2020	2/12/2020	
39	Electrical Circuits and PLCs	Programmable Logic Controllers (J237.H)	Lesson 3	2/12/2020	2/17/2020	
40	PLC Hardware	Programmable Logic Controllers (J237.H)	Lesson 4	2/17/2020	2/19/2020	
41	PLC Programming Instructions	Programmable Logic Controllers (J237.H)	Lesson 5	2/19/2020	2/24/2020	
42	Programming PLC Timers and Counters	Programmable Logic Controllers (J237.H)	Lesson 6	2/24/2020	2/26/2020	
43	PLC and System Interfacing	Programmable Logic Controllers (J237.H)	Lesson 7	2/26/2020	3/9/2020	
44	PLC Installations and Startup	Programmable Logic Controllers (J237.H)	Lesson 8	3/9/2020	3/11/2020	
45	PLC and System Maintenance	Programmable Logic Controllers (J237.H)	Lesson 9	3/11/2020	3/23/2020	
46	Troubleshooting Principles and Test Instruments	Programmable Logic Controllers (J237.H)	Lesson 10	3/23/2020	3/25/2020	
47	Troubleshooting PLC Hardware	Programmable Logic Controllers (J237.H)	Lesson 11	3/25/2020	3/30/2020	
48	Troubleshooting with PLC Software	Programmable Logic Controllers (J237.H)	Lesson 12	3/30/2020	4/1/2020	
49	Analog Principles	Programmable Logic Controllers (J237.H)	Lesson 13	4/1/2020	4/6/2020	
50	Analog Device Installation and PLC Programming	Programmable Logic Controllers (J237.H)	Lesson 14	4/6/2020	4/8/2020	

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Test Date: <u>1/6/2020</u>		Code & Practices 4	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
55	Installing Electrical Services	Code & Practices 4/5 (J236.1)	Lesson 11	12/16/2019	12/17/2019
56	Swimming Pools, Fountains, and Similar Installations	Code & Practices 4/5 (J236.1)	Lesson 12	12/16/2019	12/17/2019
57	Understanding Emergency and Standby Systems Installation Requirements	Code & Practices 4/5 (J236.1)	Lesson 13	12/17/2019	12/17/2019
58	Over 600 Volt Installations	Code & Practices 4/5 (J236.1)	Lesson 14	12/17/2019	12/18/2019
59	Remote-Control, Signaling, and Power-Limited Circuits	Code & Practices 4/5 (J236.1)	Lesson 15	12/18/2019	12/19/2019
60	Changes to the NEC - Part I	Code & Practices 4/5 (J236.1)	Lesson 16	12/19/2019	12/20/2019
61	Changes to the NEC - Part II	Code & Practices 4/5 (J236.1)	Lesson 17	12/20/2019	12/21/2019
62	Preparing to Take NEC Competency Examinations	Code & Practices 4/5 (J236.1)	Lesson 18	12/21/2019	1/6/2020

Test Date: <u>1/8/2020</u>		Torque	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
63	Torque Theory	Torque (J242)	Lesson 1	12/22/2019	12/23/2019
64	Threaded Fasteners Basics	Torque (J242)	Lesson 2	12/23/2019	12/24/2019
65	Introduction to Torque Applications	Torque (J242)	Lesson 3	12/24/2019	12/25/2019
66	Torque Products	Torque (J242)	Lesson 4	12/25/2019	12/26/2019
67	Real World Electrical Torque Applications	Torque (J242)	Lesson 5	12/26/2019	1/8/2020

Test Date: <u>1/13/2020</u>		Orientation	Level	III	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date Covered	Homework Due Date
68	The National Electrical Benefit Fund (NEBF)	Orientation	Lesson 17	12/29/2019	12/30/2019
69	After Apprenticeship	Orientation	Lesson 18	12/30/2019	12/31/2019
70	Soon to be an Instructor	Orientation	Lesson 19	12/31/2019	4/3/2019
71	Your National Program	Orientation	Lesson 20	4/3/2019	1/1/2020
72	Keys to Success-Motivation and Leadership	Orientation	Lesson 21	1/1/2020	1/2/2020
73	The National Labor Relations Board	Orientation	Lesson 22	1/2/2020	1/3/2020
74	The Economics of Unemployment	Orientation	Lesson 23	1/2/2020	1/3/2020
75	The Realities of Construction	Orientation	Lesson 24	1/3/2020	1/13/2020

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