

2020 - 2021 5th Year Syllabus and Schedule

Test Date:	9/9/2020	Transformers	Level	III	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
1	Electrical Safety	Transformers Textbook	Lesson 1	8/19/2020	8/24/2020
2	Special Transformers	Transformers Textbook	Lesson 2	8/24/2020	8/26/2020
3	Special Connections	Transformers Textbook	Lesson 3	8/26/2020	8/31/2020
4	Selection and Installation	Transformers Textbook	Lesson 4	8/31/2020	9/2/2020
5	Maintenance and Troubleshooting	Transformers Textbook	Lesson 5	9/2/2020	9/9/2020

Test Date:	11/9/2020	Motor Control	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
6	Introduction to Magnetic Motor Control	Fundamentals of Motor Control	Lesson 1	9/9/2020	9/9/2020
7	Manual Pilot Devices	Fundamentals of Motor Control	Lesson 2	9/9/2020	10/14/2020
8	Automatic Pilot Devices	Fundamentals of Motor Control	Lesson 3	10/14/2020	10/19/2020
9	Magnetic Control Relays	Fundamentals of Motor Control	Lesson 4	10/19/2020	10/21/2020
10	Control Transformers	Fundamentals of Motor Control	Lesson 5	10/21/2020	10/26/2020
11	Magnetic Contactors	Fundamentals of Motor Control	Lesson 6	10/26/2020	10/28/2020
12	Basic Motor Starters	Fundamentals of Motor Control	Lesson 7	10/28/2020	11/2/2020
13	Basic Timers	Fundamentals of Motor Control	Lesson 8	11/2/2020	11/4/2020
14	Control Diagrams and Drawings	Fundamentals of Motor Control	Lesson 9	11/4/2020	11/9/2020

Test Date:	12/9/2020	Motor Control	Level	II	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
15	Basic Electronics for Motor Control Devices	Fundamentals of Motor Control	Lesson 1	11/9/2020	11/11
16	More Electronics for Motor Control Devices	Fundamentals of Motor Control	Lesson 2	11/11/2020	11/16
17	Solid-State Motor Control Pilot Devices	Fundamentals of Motor Control	Lesson 3	11/16/2020	11/18
18	Solid-State Relays	Fundamentals of Motor Control	Lesson 4	11/18/2020	11/23
19	Motor Control Centers	Fundamentals of Motor Control	Lesson 5	11/23/2020	11/25
20	Special Purpose Starters	Fundamentals of Motor Control	Lesson 6	11/25/2020	11/30
21	Electronic Programmable Timers	Fundamentals of Motor Control	Lesson 7	11/30/2020	12/2
22	Special Control Components	Fundamentals of Motor Control	Lesson 8	12/2/2020	12/7
23	AC Motor Speed Control	Fundamentals of Motor Control	Lesson 9	12/7/2020	12/9

Test Date:	11/30/2020	Torque	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
24	Torque Theory	Torque (J242)	Lesson 1	11/25/2020	11/30/2020
25	Threaded Fasteners Basics	Torque (J242)	Lesson 2	11/25/2020	11/30/2020
26	Introduction to Torque Applications	Torque (J242)	Lesson 3	11/25/2020	11/30/2020
27	Torque Products	Torque (J242)	Lesson 4	11/25/2020	11/30/2020
28	Real World Electrical Torque Applications	Torque (J242)	Lesson 5	11/25/2020	11/30/2020

Test Date	12/30/2020	Orientation	Level	III	Test Grade
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
29	The National Electrical Benefit Fund (NEBF)	Orientation	Lesson 17	12/21/2020	12/30/2020
30	After Apprenticeship	Orientation	Lesson 18	12/21/2020	12/30/2020
31	Soon to be an Instructor	Orientation	Lesson 19	12/21/2020	12/30/2020
32	Your National Program	Orientation	Lesson 20	12/21/2020	12/30/2020
33	Keys to Success-Motivation and Leadership	Orientation	Lesson 21	12/21/2020	12/30/2020
34	The National Labor Relations Board	Orientation	Lesson 22	12/21/2020	12/30/2020
35	The Economics of Unemployment	Orientation	Lesson 23	12/21/2020	12/30/2020
36	The Realities of Construction	Orientation	Lesson 24	12/21/2020	12/30/2020

Test Date:	1/20/2021	Motor Control	Level	III	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
37	DC Motor Control	Fundamentals of Motor Control	Lesson 1	12/9/2020	12/9
38	Understanding Analog Signals	Fundamentals of Motor Control	Lesson 2	12/9/2020	12/16
39	Analog Pilot Devices	Fundamentals of Motor Control	Lesson 3	12/14/2020	12/16
40	Working With Solid-State Devices in Motor Control	Fundamentals of Motor Control	Lesson 4	12/16/2020	1/4
41	Variable Frequency Drives	Fundamentals of Motor Control	Lesson 5	1/4/2021	1/6
42	Programmable Logic Controllers	Fundamentals of Motor Control	Lesson 6	1/6/2021	1/11
43	Controlling Synchronous, Stepper, and Servo Motors	Fundamentals of Motor Control	Lesson 7	1/11/2021	1/13
44	Networked Motor Control	Fundamentals of Motor Control	Lesson 8	1/13/2021	1/18
45	Troubleshooting Electrical Systems	Fundamentals of Motor Control	Lesson 9	1/18/2021	1/20

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Test Date:	3/10/2021	PLC	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
46	PLC and Electrical Safety	Programmable Logic Controllers (S531)	Lesson 1	1/20/2021	1/25/2021
47	Electrical Principles and PLCs	Programmable Logic Controllers (S531)	Lesson 2	1/25/2021	1/27/2021
48	Electrical Circuits and PLCs	Programmable Logic Controllers (S531)	Lesson 3	1/27/2021	2/1/2021
49	PLC Hardware	Programmable Logic Controllers (S531)	Lesson 4	2/1/2021	2/3/2021
50	PLC Programming Instructions	Programmable Logic Controllers (S531)	Lesson 5	2/3/2021	2/8/2021
51	Programming PLC Timers and Counters	Programmable Logic Controllers (S531)	Lesson 6	2/8/2021	2/10/2021
52	PLC and System Interfacing	Programmable Logic Controllers (S531)	Lesson 7	2/10/2021	2/15/2021
53	PLC Installations and Startup	Programmable Logic Controllers (S531)	Lesson 8	2/15/2021	2/17/2021
54	PLC and System Maintenance	Programmable Logic Controllers (S531)	Lesson 9	2/17/2021	2/22/2021
55	Troubleshooting Principles and Test Instruments	Programmable Logic Controllers (S531)	Lesson 10	2/22/2021	2/24/2021
56	Troubleshooting PLC Hardware	Programmable Logic Controllers (S531)	Lesson 11	2/24/2021	3/1/2021
57	Troubleshooting with PLC Software	Programmable Logic Controllers (S531)	Lesson 12	3/1/2021	3/3/2021
58	Analog Principles	Programmable Logic Controllers (S531)	Lesson 13	3/3/2021	3/8/2021
59	Analog Device Installation and PLC Programming	Programmable Logic Controllers (S531)	Lesson 14	3/8/2021	3/10/2021

Test Date:	4/12/2021	Power Quality	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
60	Why care about power quality?	Power Quality Textbook	Lesson 1	3/10/2021	3/15/2021
61	The basics of power quality	Power Quality Textbook	Lesson 2	3/15/2021	3/17/2021
62	Safety	Power Quality Textbook	Lesson 3	3/17/2021	3/22/2021
63	Using the right tool	Power Quality Textbook	Lesson 4	3/22/2021	3/24/2021
64	Monitor setup	Power Quality Textbook	Lesson 5	3/24/2021	3/29/2021
65	Data collection and analysis	Power Quality Textbook	Lesson 6	3/29/2021	3/31/2021
66	Practical examples	Power Quality Textbook	Lesson 7	3/31/2021	4/5/2021
67	Rule of thumb	Power Quality Textbook	Lesson 8	4/5/2021	4/7/2021
68	Mitigation equipment	Power Quality Textbook	Lesson 9	4/7/2021	4/12/2021

Test Date:	5/5/2021	Building Automation	Level	III	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
69	Introduction to Building Automation	Building Automation: Control Dev	Lesson 1	4/12/2021	4/14/2021
70	Electrical Systems	Building Automation: Control Dev	Lesson 2	4/14/2021	4/19/2021
71	Lighting Sources and Controls	Building Automation: Control Dev	Lesson 3	4/19/2021	4/21/2021
72	Lighting Systems Control Devices	Building Automation: Control Dev	Lesson 4	4/21/2021	4/26/2021
73	HVAC Systems	Building Automation: Control Dev	Lesson 5	4/26/2021	4/28/2021
74	Hvac Systems Applications	Building Automation: Control Dev	Lesson 6	4/28/2021	5/3/2021
75	Automated Building Operation and Applications	Building Automation: Control Dev	Lesson 7	5/3/2021	5/5/2021

Test Date:	6/28/2021	Structured Cabling	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
76	The Need for Structured Cabling Systems	Structured Cabling (S581)	Lesson 1	5/10/2021	5/12/2021
77	Introduction to TIA/EIA Standards and Codes	Structured Cabling (S581)	Lesson 2	5/12/2021	5/17/2021
78	Structured Cabling Systems Overview	Structured Cabling (S581)	Lesson 3	5/17/2021	5/19/2021
79	Safety Codes	Structured Cabling (S581)	Lesson 4	5/19/2021	5/24/2021
80	Cabling Systems Performance	Structured Cabling (S581)	Lesson 5	5/24/2021	5/26/2021
81	Unshielded Twisted Pair Cables	Structured Cabling (S581)	Lesson 6	5/26/2021	5/31/2021
82	Shielded Twisted Pair Cables	Structured Cabling (S581)	Lesson 7	5/31/2021	6/2/2021
83	Telecommunications Pathways and Spaces	Structured Cabling (S581)	Lesson 8	6/2/2021	6/7/2021
84	Telecommunications Cabling Administration	Structured Cabling (S581)	Lesson 9	6/7/2021	6/9/2021
85	Telecommunications Grounding and Bonding	Structured Cabling (S581)	Lesson 10	6/9/2021	6/14/2021
86	Configuring Structured Cabling Systems	Structured Cabling (S581)	Lesson 11	6/14/2021	6/16/2021
87	Structured Cabling Systems Applications	Structured Cabling (S581)	Lesson 12	6/16/2021	6/21/2021
88	Residential Telecommunications Cabling	Structured Cabling (S581)	Lesson 13	6/21/2021	6/23/2021
89	Certifying the UTP Cabling System	Structured Cabling (S581)	Lesson 14	6/23/2021	6/28/2021