

2021 - 2022 4th Year Syllabus and Schedule

Test Date:	9/6/2021	Transformers	Level	III	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
1	Electrical Safety	Transformers Textbook	Lesson 1	8/16/2021	8/18/2021
2	Special Transformers	Transformers Textbook	Lesson 2	8/18/2021	8/23/2021
3	Special Connections	Transformers Textbook	Lesson 3	8/23/2021	8/25/2021
4	Selection and Installation	Transformers Textbook	Lesson 4	8/25/2021	8/30/2021
5	Maintenance and Troubleshooting	Transformers Textbook	Lesson 5	8/30/2021	9/6/2021

Test Date:	10/4/2021	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	9/6/2021	9/6/2021
7	Manual Pilot Devices	Fundamentals of Motor Control	Lesson 2	9/6/2021	9/8/2021
8	Automatic Pilot Devices	Fundamentals of Motor Control	Lesson 3	9/8/2021	9/13/2021
9	Magnetic Control Relays	Fundamentals of Motor Control	Lesson 4	9/13/2021	9/15/2021
10	Control Transformers	Fundamentals of Motor Control	Lesson 5	9/15/2021	9/20/2021
11	Magnetic Contactors	Fundamentals of Motor Control	Lesson 6	9/20/2021	9/22/2021
12	Basic Motor Starters	Fundamentals of Motor Control	Lesson 7	9/22/2021	9/27/2021
13	Basic Timers	Fundamentals of Motor Control	Lesson 8	9/27/2021	9/29/2021
14	Control Diagrams and Drawings	Fundamentals of Motor Control	Lesson 9	9/29/2021	10/4/2021

Test Date:	11/3/2021	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	10/4/2021	10/6
16	More Electronics for Motor Control Devices	Fundamentals of Motor Control	Lesson 2	10/6/2021	10/11
17	Solid-State Motor Control Pilot Devices	Fundamentals of Motor Control	Lesson 3	10/11/2021	10/13
18	Solid-State Relays	Fundamentals of Motor Control	Lesson 4	10/13/2021	10/18
19	Motor Control Centers	Fundamentals of Motor Control	Lesson 5	10/18/2021	10/20
20	Special Purpose Starters	Fundamentals of Motor Control	Lesson 6	10/20/2021	10/25
21	Electronic Programmable Timers	Fundamentals of Motor Control	Lesson 7	10/25/2021	10/27
22	Special Control Components	Fundamentals of Motor Control	Lesson 8	10/27/2021	11/1
23	AC Motor Speed Control	Fundamentals of Motor Control	Lesson 9	11/1/2021	11/3

Test Date:	11/24/2021	Torque	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
24	Torque Theory	Torque (J242)	Lesson 1	11/22/2021	11/24/2021
25	Threaded Fasteners Basics	Torque (J242)	Lesson 2	11/22/2021	11/24/2021
26	Introduction to Torque Applications	Torque (J242)	Lesson 3	11/22/2021	11/24/2021
27	Torque Products	Torque (J242)	Lesson 4	11/22/2021	11/24/2021
28	Real World Electrical Torque Applications	Torque (J242)	Lesson 5	11/22/2021	11/24/2021

Test Date	12/27/2021	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	12/15/2021	12/27/2021
30	After Apprenticeship	Orientation	Lesson 18	12/15/2021	12/27/2021
31	Soon to be an Instructor	Orientation	Lesson 19	12/15/2021	12/27/2021
32	Your National Program	Orientation	Lesson 20	12/15/2021	12/27/2021
33	Keys to Success-Motivation and Leadership	Orientation	Lesson 21	12/15/2021	12/27/2021
34	The National Labor Relations Board	Orientation	Lesson 22	12/15/2021	12/27/2021
35	The Economics of Unemployment	Orientation	Lesson 23	12/15/2021	12/27/2021
36	The Realities of Construction	Orientation	Lesson 24	12/15/2021	12/27/2021

Test Date:	12/8/2021	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	11/8/2021	11/10/2021
38	Understanding Analog Signals	Fundamentals of Motor Control	Lesson 2	11/10/2021	11/17/2021
39	Analog Pilot Devices	Fundamentals of Motor Control	Lesson 3	11/15/2021	11/17/2021
40	Working With Solid-State Devices in Motor Control	Fundamentals of Motor Control	Lesson 4	11/17/2021	11/22/2021
41	Variable Frequency Drives	Fundamentals of Motor Control	Lesson 5	11/22/2021	11/24/2021
42	Programmable Logic Controllers	Fundamentals of Motor Control	Lesson 6	11/24/2021	11/29/2021
43	Controlling Synchronous, Stepper, and Servo Motors	Fundamentals of Motor Control	Lesson 7	11/29/2021	12/1/2021
44	Networked Motor Control	Fundamentals of Motor Control	Lesson 8	12/1/2021	12/6/2021
45	Troubleshooting Electrical Systems	Fundamentals of Motor Control	Lesson 9	12/6/2021	12/8/2021

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Test Date:	3/7/2022		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	1/17/2022	1/19/2022	
47	Electrical Principles and PLCs	Programmable Logic Controllers (S531)	Lesson 2	1/19/2022	1/24/2022	
48	Electrical Circuits and PLCs	Programmable Logic Controllers (S531)	Lesson 3	1/24/2022	1/26/2022	
49	PLC Hardware	Programmable Logic Controllers (S531)	Lesson 4	1/26/2022	1/31/2022	
50	PLC Programming Instructions	Programmable Logic Controllers (S531)	Lesson 5	1/31/2022	2/2/2022	
51	Programming PLC Timers and Counters	Programmable Logic Controllers (S531)	Lesson 6	2/2/2022	2/7/2022	
52	PLC and System Interfacing	Programmable Logic Controllers (S531)	Lesson 7	2/7/2022	2/9/2022	
53	PLC Installations and Startup	Programmable Logic Controllers (S531)	Lesson 8	2/9/2022	2/14/2022	
54	PLC and System Maintenance	Programmable Logic Controllers (S531)	Lesson 9	2/14/2022	2/16/2022	
55	Troubleshooting Principles and Test Instruments	Programmable Logic Controllers (S531)	Lesson 10	2/16/2022	2/21/2022	
56	Troubleshooting PLC Hardware	Programmable Logic Controllers (S531)	Lesson 11	2/21/2022	2/23/2022	
57	Troubleshooting with PLC Software	Programmable Logic Controllers (S531)	Lesson 12	2/23/2022	2/28/2022	
58	Analog Principles	Programmable Logic Controllers (S531)	Lesson 13	2/28/2022	3/2/2022	
59	Analog Device Installation and PLC Programming	Programmable Logic Controllers (S531)	Lesson 14	3/2/2022	3/7/2022	

Test Date:	4/6/2022		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	3/7/2022	3/9/2022	
61	The basics of power quality	Power Quality Textbook	Lesson 2	3/9/2022	3/14/2022	
62	Safety	Power Quality Textbook	Lesson 3	3/14/2022	3/16/2022	
63	Using the right tool	Power Quality Textbook	Lesson 4	3/16/2022	3/21/2022	
64	Monitor setup	Power Quality Textbook	Lesson 5	3/21/2022	3/23/2022	
65	Data collection and analysis	Power Quality Textbook	Lesson 6	3/23/2022	3/28/2022	
66	Practical examples	Power Quality Textbook	Lesson 7	3/28/2022	3/30/2022	
67	Rule of thumb	Power Quality Textbook	Lesson 8	3/30/2022	4/4/2022	
68	Mitigation equipment	Power Quality Textbook	Lesson 9	4/4/2022	4/6/2022	

Test Date:	5/2/2022		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	4/6/2022	4/11/2022	
70	Electrical Systems	Building Automation: Control Dev	Lesson 2	4/11/2022	4/13/2022	
71	Lighting Sources and Controls	Building Automation: Control Dev	Lesson 3	4/13/2022	4/18/2022	
72	Lighting Systems Control Devices	Building Automation: Control Dev	Lesson 4	4/18/2022	4/20/2022	
73	HVAC Systems	Building Automation: Control Dev	Lesson 5	4/20/2022	4/25/2022	
74	Hvac Systems Applications	Building Automation: Control Dev	Lesson 6	4/25/2022	4/27/2022	
75	Automated Building Operation and Applications	Building Automation: Control Dev	Lesson 7	4/27/2022	5/2/2022	

Test Date:	6/22/2022		Structured Cabling	Level	1	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date	
76	The Need for Structured Cabling Systems	Structured Cabling (S581)	Lesson 1	5/4/2022	5/9/2022	
77	Introduction to TIA/EIA Standards and Codes	Structured Cabling (S581)	Lesson 2	5/9/2022	5/11/2022	
78	Structured Cabling Systems Overview	Structured Cabling (S581)	Lesson 3	5/11/2022	5/16/2022	
79	Safety Codes	Structured Cabling (S581)	Lesson 4	5/16/2022	5/18/2022	
80	Cabling Systems Performance	Structured Cabling (S581)	Lesson 5	5/18/2022	5/23/2022	
81	Unshielded Twisted Pair Cables	Structured Cabling (S581)	Lesson 6	5/23/2022	5/25/2022	
82	Shielded Twisted Pair Cables	Structured Cabling (S581)	Lesson 7	5/25/2022	5/30/2022	
83	Telecommunications Pathways and Spaces	Structured Cabling (S581)	Lesson 8	5/30/2022	6/1/2022	
84	Telecommunications Cabling Administration	Structured Cabling (S581)	Lesson 9	6/1/2022	6/6/2022	
85	Telecommunications Grounding and Bonding	Structured Cabling (S581)	Lesson 10	6/6/2022	6/8/2022	
86	Configuring Structured Cabling Systems	Structured Cabling (S581)	Lesson 11	6/8/2022	6/13/2022	
87	Structured Cabling Systems Applications	Structured Cabling (S581)	Lesson 12	6/13/2022	6/15/2022	
88	Residential Telecommunications Cabling	Structured Cabling (S581)	Lesson 13	6/15/2022	6/20/2022	
89	Certifying the UTP Cabling System	Structured Cabling (S581)	Lesson 14	6/20/2022	6/22/2022	