

## 2021 - 2022 4th Year Syllabus and Schedule

Test Date:	8/30/2022	Transformers	Level	III	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
1	Electrical Safety	Transformers Textbook	Lesson 1	8/16/2022	8/21/2022
2	Special Transformers	Transformers Textbook	Lesson 2	8/18/2022	8/21/2022
3	Special Connections	Transformers Textbook	Lesson 3	8/23/2022	8/28/2022
4	Selection and Installation	Transformers Textbook	Lesson 4	8/23/2022	8/28/2022
5	Maintenance and Troubleshooting	Transformers Textbook	Lesson 5	8/25/2022	8/28/2022

Test Date:	10/6/2022	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	9/1/2022	9/4/2022
7	Manual Pilot Devices	Fundamentals of Motor Control	Lesson 2	9/8/2022	9/11/2022
8	Automatic Pilot Devices	Fundamentals of Motor Control	Lesson 3	9/13/2022	9/18/2022
9	Magnetic Control Relays	Fundamentals of Motor Control	Lesson 4	9/15/2022	9/18/2022
10	Control Transformers	Fundamentals of Motor Control	Lesson 5	9/20/2022	9/25/2022
11	Magnetic Contactors	Fundamentals of Motor Control	Lesson 6	9/22/2022	9/25/2022
12	Basic Motor Starters	Fundamentals of Motor Control	Lesson 7	9/27/2022	10/2/2022
13	Basic Timers	Fundamentals of Motor Control	Lesson 8	9/29/2022	10/2/2022
14	Control Diagrams and Drawings	Fundamentals of Motor Control	Lesson 9	10/4/2022	10/6/2022

Test Date:	11/10/2022	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	10/11/2022	10/16/2022
16	More Electronics for Motor Control Devices	Fundamentals of Motor Control	Lesson 2	10/13/2022	10/16/2022
17	Solid-State Motor Control Pilot Devices	Fundamentals of Motor Control	Lesson 3	10/18/2022	10/23/2022
18	Solid-State Relays	Fundamentals of Motor Control	Lesson 4	10/20/2022	10/23/2022
19	Motor Control Centers	Fundamentals of Motor Control	Lesson 5	10/25/2022	10/30/2022
20	Special Purpose Starters	Fundamentals of Motor Control	Lesson 6	10/27/2022	10/30/2022
21	Electronic Programmable Timers	Fundamentals of Motor Control	Lesson 7	11/1/2022	11/6/2022
22	Special Control Components	Fundamentals of Motor Control	Lesson 8	11/3/2022	11/6/2022
23	AC Motor Speed Control	Fundamentals of Motor Control	Lesson 9	11/8/2022	11/10/2022

Test Date:	11/29/2022	Torque	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
24	Torque Theory	Torque (J242)	Lesson 1	11/22/2022	11/27/2022
25	Threaded Fasteners Basics	Torque (J242)	Lesson 2	11/22/2022	11/27/2022
26	Introduction to Torque Applications	Torque (J242)	Lesson 3	11/22/2022	11/27/2022
27	Torque Products	Torque (J242)	Lesson 4	11/22/2022	11/27/2022
28	Real World Electrical Torque Applications	Torque (J242)	Lesson 5	11/22/2022	11/27/2022

Test Date:	12/15/2022	Motor Control	Level	III	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
29	DC Motor Control	Fundamentals of Motor Control	Lesson 1	11/15/2022	11/20/2022
30	Understanding Analog Signals	Fundamentals of Motor Control	Lesson 2	11/17/2022	11/20/2022
31	Analog Pilot Devices	Fundamentals of Motor Control	Lesson 3	11/22/2022	11/27/2022
32	Working With Solid-State Devices in Motor Control	Fundamentals of Motor Control	Lesson 4	11/24/2022	11/27/2022
33	Variable Frequency Drives	Fundamentals of Motor Control	Lesson 5	11/29/2022	12/4/2022
34	Programmable Logic Controllers	Fundamentals of Motor Control	Lesson 6	12/1/2022	12/4/2022
35	Controlling Synchronous, Stepper, and Servo Motors	Fundamentals of Motor Control	Lesson 7	12/6/2022	12/11/2022
36	Networked Motor Control	Fundamentals of Motor Control	Lesson 8	12/8/2022	12/11/2022
37	Troubleshooting Electrical Systems	Fundamentals of Motor Control	Lesson 9	12/13/2022	12/15/2022

Test Date	1/3/2023	Orientation	Level	III	Test Grade
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
38	The National Electrical Benefit Fund (NEBF)	Orientation	Lesson 17	12/20/2022	1/1/2023
39	After Apprenticeship	Orientation	Lesson 18	12/20/2022	1/1/2023
40	Soon to be an Instructor	Orientation	Lesson 19	12/22/2022	1/1/2023
41	Your National Program	Orientation	Lesson 20	12/22/2022	1/1/2023
42	Keys to Success-Motivation and Leadership	Orientation	Lesson 21	12/27/2022	1/1/2023
43	The National Labor Relations Board	Orientation	Lesson 22	12/27/2022	1/1/2023
44	The Economics of Unemployment	Orientation	Lesson 23	12/29/2022	1/1/2023
45	The Realities of Construction	Orientation	Lesson 24	12/29/2022	1/1/2023

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Test Date:	2/21/2023	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	1/3/2023	1/8/2023
47	Electrical Principles and PLCs	Programmable Logic Controllers (S531)	Lesson 2	1/5/2023	1/8/2023
48	Electrical Circuits and PLCs	Programmable Logic Controllers (S531)	Lesson 3	1/10/2023	1/15/2023
49	PLC Hardware	Programmable Logic Controllers (S531)	Lesson 4	1/12/2023	1/15/2023
50	PLC Programming Instructions	Programmable Logic Controllers (S531)	Lesson 5	1/17/2023	1/22/2023
51	Programming PLC Timers and Counters	Programmable Logic Controllers (S531)	Lesson 6	1/19/2023	1/22/2023
52	PLC and System Interfacing	Programmable Logic Controllers (S531)	Lesson 7	1/24/2023	1/29/2023
53	PLC Installations and Startup	Programmable Logic Controllers (S531)	Lesson 8	1/26/2023	1/29/2023
54	PLC and System Maintenance	Programmable Logic Controllers (S531)	Lesson 9	1/31/2023	2/5/2023
55	Troubleshooting Principles and Test Instruments	Programmable Logic Controllers (S531)	Lesson 10	2/2/2023	2/5/2023
56	Troubleshooting PLC Hardware	Programmable Logic Controllers (S531)	Lesson 11	2/7/2023	2/12/2023
57	Troubleshooting with PLC Software	Programmable Logic Controllers (S531)	Lesson 12	2/9/2023	2/12/2023
58	Analog Principles	Programmable Logic Controllers (S531)	Lesson 13	2/14/2023	2/19/2023
59	Analog Device Installation and PLC Programming	Programmable Logic Controllers (S531)	Lesson 14	2/16/2023	2/19/2023

## PREPARE FOR APPRENTICE OF THE YEAR TEST

Test Date:	3/23/2023	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	2/21/2023	2/26/2023
61	The basics of power quality	Power Quality Textbook	Lesson 2	2/23/2023	2/26/2023
62	Safety	Power Quality Textbook	Lesson 3	2/28/2023	3/5/2023
63	Using the right tool	Power Quality Textbook	Lesson 4	3/2/2023	3/5/2023
64	Monitor setup	Power Quality Textbook	Lesson 5	3/7/2023	3/12/2023
65	Data collection and analysis	Power Quality Textbook	Lesson 6	3/9/2023	3/12/2023
66	Practical examples	Power Quality Textbook	Lesson 7	3/14/2023	3/19/2023
67	Rule of thumb	Power Quality Textbook	Lesson 8	3/16/2023	3/19/2023
68	Mitigation equipment	Power Quality Textbook	Lesson 9	3/21/2023	3/23/2023

Test Date:	4/18/2023	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	3/23/2023	3/26/2023
70	Electrical Systems	Building Automation: Control Dev	Lesson 2	3/28/2023	4/2/2023
71	Lighting Sources and Controls	Building Automation: Control Dev	Lesson 3	3/30/2023	4/2/2023
72	Lighting Systems Control Devices	Building Automation: Control Dev	Lesson 4	4/4/2023	4/9/2023
73	HVAC Systems	Building Automation: Control Dev	Lesson 5	4/6/2023	4/9/2023
74	Hvac Systems Applications	Building Automation: Control Dev	Lesson 6	4/11/2023	4/16/2023
75	Automated Building Operation and Applications	Building Automation: Control Dev	Lesson 7	4/13/2023	4/16/2023

Test Date:	5/11/2023	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	4/18/2023	4/23/2023
77	Introduction to TIA/EIA Standards and Codes	Structured Cabling (S581)	Lesson 2	4/18/2023	4/23/2023
78	Structured Cabling Systems Overview	Structured Cabling (S581)	Lesson 3	4/20/2023	4/23/2023
79	Safety Codes	Structured Cabling (S581)	Lesson 4	4/20/2023	4/23/2023
80	Cabling Systems Performance	Structured Cabling (S581)	Lesson 5	4/25/2023	4/30/2023
81	Unshielded Twisted Pair Cables	Structured Cabling (S581)	Lesson 6	4/25/2023	4/30/2023
82	Shielded Twisted Pair Cables	Structured Cabling (S581)	Lesson 7	4/27/2023	4/30/2023
83	Telecommunications Pathways and Spaces	Structured Cabling (S581)	Lesson 8	4/27/2023	4/30/2023
84	Telecommunications Cabling Administration	Structured Cabling (S581)	Lesson 9	5/2/2023	5/7/2023
85	Telecommunications Grounding and Bonding	Structured Cabling (S581)	Lesson 10	5/2/2023	5/7/2023
86	Configuring Structured Cabling Systems	Structured Cabling (S581)	Lesson 11	5/4/2023	5/7/2023
87	Structured Cabling Systems Applications	Structured Cabling (S581)	Lesson 12	5/4/2023	5/7/2023
88	Residential Telecommunications Cabling	Structured Cabling (S581)	Lesson 13	5/9/2023	5/11/2023
89	Certifying the UTP Cabling System	Structured Cabling (S581)	Lesson 14	5/9/2023	5/11/2023

Test Date:	5/25/2023	Code, Standards, and Practices 5	Level	1	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
90	The Need for Structured Cabling Systems	National Electric Code - 2017 (S950)	Lesson 1	5/11/2023	5/16/2023
91	Introduction to TIA/EIA Standards and Codes	National Electric Code - 2017 (S950)	Lesson 2	5/16/2023	5/16/2023
92	Structured Cabling Systems Overview	National Electric Code - 2017 (S950)	Lesson 3	5/16/2023	5/18/2023
93	Safety Codes	National Electric Code - 2017 (S950)	Lesson 4	5/18/2023	5/18/2023
94	Cabling Systems Performance	National Electric Code - 2017 (S950)	Lesson 5	5/18/2023	5/23/2023
95	Unshielded Twisted Pair Cables	National Electric Code - 2017 (S950)	Lesson 6	5/23/2023	5/23/2023
96	Shielded Twisted Pair Cables	National Electric Code - 2017 (S950)	Lesson 7	5/23/2023	5/25/2023