

2021 - 2022 4th Year Syllabus and Schedule

Test Date: 9/7/2021		Transformers		Level	III	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date	
1	Electrical Safety	Transformers Textbook	Lesson 1	8/17/2021	8/19/2021	
2	Special Transformers	Transformers Textbook	Lesson 2	8/19/2021	8/24/2021	
3	Special Connections	Transformers Textbook	Lesson 3	8/24/2021	8/26/2021	
4	Selection and Installation	Transformers Textbook	Lesson 4	8/26/2021	8/31/2021	
5	Maintenance and Troubleshooting	Transformers Textbook	Lesson 5	8/31/2021	9/7/2021	

Test Date: 10/5/2021		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	9/7/2021	9/7/2021	
7	Manual Pilot Devices	Fundamentals of Motor Control	Lesson 2	9/7/2021	9/9/2021	
8	Automatic Pilot Devices	Fundamentals of Motor Control	Lesson 3	9/9/2021	9/14/2021	
9	Magnetic Control Relays	Fundamentals of Motor Control	Lesson 4	9/14/2021	9/16/2021	
10	Control Transformers	Fundamentals of Motor Control	Lesson 5	9/16/2021	9/21/2021	
11	Magnetic Contactors	Fundamentals of Motor Control	Lesson 6		9/23/2021	
12	Basic Motor Starters	Fundamentals of Motor Control	Lesson 7	9/23/2021	9/28/2021	
13	Basic Timers	Fundamentals of Motor Control	Lesson 8	9/28/2021	9/30/2021	
14	Control Diagrams and Drawings	Fundamentals of Motor Control	Lesson 9	9/30/2021	10/5/2021	

Test Date: 11/4/2021		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	10/5/2021	10/7	
16	More Electronics for Motor Control Devices	Fundamentals of Motor Control	Lesson 2	10/7/2021	10/12	
17	Solid-State Motor Control Pilot Devices	Fundamentals of Motor Control	Lesson 3	10/12/2021	10/14	
18	Solid-State Relays	Fundamentals of Motor Control	Lesson 4	10/14/2021	10/19	
19	Motor Control Centers	Fundamentals of Motor Control	Lesson 5	10/19/2021	10/21	
20	Special Purpose Starters	Fundamentals of Motor Control	Lesson 6	10/21/2021	10/26	
21	Electronic Programmable Timers	Fundamentals of Motor Control	Lesson 7	10/26/2021	10/28	
22	Special Control Components	Fundamentals of Motor Control	Lesson 8	10/28/2021	11/2	
23	AC Motor Speed Control	Fundamentals of Motor Control	Lesson 9	11/2/2021	11/4	

Test Date: 12/14/2021		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	11/9/2021	11/14/2021	
38	Understanding Analog Signals	Fundamentals of Motor Control	Lesson 2	11/11/2021	11/14/2021	
39	Analog Pilot Devices	Fundamentals of Motor Control	Lesson 3	11/16/2021	11/21/2021	
40	Working With Solid-State Devices in Motor Control	Fundamentals of Motor Control	Lesson 4	11/18/2021	11/21/2021	
41	Variable Frequency Drives	Fundamentals of Motor Control	Lesson 5	11/23/2021	11/28/2021	
42	Programmable Logic Controllers	Fundamentals of Motor Control	Lesson 6	11/30/2021	12/5/2021	
43	Controlling Synchronous, Stepper, and Servo Motors	Fundamentals of Motor Control	Lesson 7	12/2/2021	12/5/2021	
44	Networked Motor Control	Fundamentals of Motor Control	Lesson 8	12/7/2021	12/12/2021	
45	Troubleshooting Electrical Systems	Fundamentals of Motor Control	Lesson 9	12/9/2021	12/12/2021	

Test Date: 11/30/2021		Torque		Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date	
24	Torque Theory	Torque (J242)	Lesson 1	11/25/2021	11/28/2021	
25	Threaded Fasteners Basics	Torque (J242)	Lesson 2	11/25/2021	11/28/2021	
26	Introduction to Torque Applications	Torque (J242)	Lesson 3	11/25/2021	11/28/2021	
27	Torque Products	Torque (J242)	Lesson 4	11/25/2021	11/28/2021	
28	Real World Electrical Torque Applications	Torque (J242)	Lesson 5	11/25/2021	11/28/2021	

2021 - 2022 4th Year Syllabus and Schedule

Test Date	1/4/2022	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	12/20/2021	1/2/2022
30	After Apprenticeship	Orientation	Lesson 18	12/21/2021	1/2/2022
31	Soon to be an Instructor	Orientation	Lesson 19	12/22/2021	1/2/2022
32	Your National Program	Orientation	Lesson 20	12/23/2021	1/2/2022
33	Keys to Success-Motivation and Leadership	Orientation	Lesson 21	12/27/2021	1/2/2022
34	The National Labor Relations Board	Orientation	Lesson 22	12/28/2021	1/2/2022
35	The Economics of Unemployment	Orientation	Lesson 23	12/29/2021	1/2/2022
36	The Realities of Construction	Orientation	Lesson 24	12/30/2021	1/2/2022

Test Date:	2/24/2022	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	1/6/2022	1/9/2022
47	Electrical Principles and PLCs	Programmable Logic Controllers (S531)	Lesson 2	1/11/2022	1/16/2022
48	Electrical Circuits and PLCs	Programmable Logic Controllers (S531)	Lesson 3	1/13/2022	1/16/2022
49	PLC Hardware	Programmable Logic Controllers (S531)	Lesson 4	1/18/2022	1/23/2022
50	PLC Programming Instructions	Programmable Logic Controllers (S531)	Lesson 5	1/20/2022	1/23/2022
51	Programming PLC Timers and Counters	Programmable Logic Controllers (S531)	Lesson 6	1/25/2022	1/30/2022
52	PLC and System Interfacing	Programmable Logic Controllers (S531)	Lesson 7	1/27/2022	1/30/2022
53	PLC Installations and Startup	Programmable Logic Controllers (S531)	Lesson 8	2/1/2022	2/6/2022
54	PLC and System Maintenance	Programmable Logic Controllers (S531)	Lesson 9	2/3/2022	2/6/2022
55	Troubleshooting Principles and Test Instruments	Programmable Logic Controllers (S531)	Lesson 10	2/8/2022	2/13/2022
56	Troubleshooting PLC Hardware	Programmable Logic Controllers (S531)	Lesson 11	2/10/2022	2/13/2022
57	Troubleshooting with PLC Software	Programmable Logic Controllers (S531)	Lesson 12	2/15/2022	2/20/2022
58	Analog Principles	Programmable Logic Controllers (S531)	Lesson 13	2/17/2022	2/20/2022
59	Analog Device Installation and PLC Programming	Programmable Logic Controllers (S531)	Lesson 14	2/22/2022	2/24/2022

Test Date:	3/31/2022	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	3/1/2022	3/6/2022
61	The basics of power quality	Power Quality Textbook	Lesson 2	3/3/2022	3/6/2022
62	Safety	Power Quality Textbook	Lesson 3	3/8/2022	3/13/2022
63	Using the right tool	Power Quality Textbook	Lesson 4	3/10/2022	3/13/2022
64	Monitor setup	Power Quality Textbook	Lesson 5	3/15/2022	3/20/2022
65	Data collection and analysis	Power Quality Textbook	Lesson 6	3/17/2022	3/20/2022
66	Practical examples	Power Quality Textbook	Lesson 7	3/22/2022	3/27/2022
67	Rule of thumb	Power Quality Textbook	Lesson 8	3/24/2022	3/27/2022
68	Mitigation equipment	Power Quality Textbook	Lesson 9	3/29/2022	3/31/2022

Test Date:	4/28/2022	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	4/5/2022	4/10/2022
70	Electrical Systems	Building Automation: Control Dev	Lesson 2	4/7/2022	4/10/2022
71	Lighting Sources and Controls	Building Automation: Control Dev	Lesson 3	4/12/2022	4/17/2022
72	Lighting Systems Control Devices	Building Automation: Control Dev	Lesson 4	4/14/2022	4/17/2022
73	HVAC Systems	Building Automation: Control Dev	Lesson 5	4/19/2022	4/24/2022
74	Hvac Systems Applications	Building Automation: Control Dev	Lesson 6	4/21/2022	4/24/2022
75	Automated Building Operation and Applications	Building Automation: Control Dev	Lesson 7	4/26/2022	4/28/2022

Test Date:	5/26/2022	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	5/3/2022	5/8/2022
77	Introduction to TIA/EIA Standards and Codes	Structured Cabling (S581)	Lesson 2	5/3/2022	5/8/2022
78	Structured Cabling Systems Overview	Structured Cabling (S581)	Lesson 3	5/5/2022	5/8/2022
79	Safety Codes	Structured Cabling (S581)	Lesson 4	5/5/2022	5/8/2022
80	Cabling Systems Performance	Structured Cabling (S581)	Lesson 5	5/10/2022	5/15/2022
81	Unshielded Twisted Pair Cables	Structured Cabling (S581)	Lesson 6	5/10/2022	5/15/2022
82	Shielded Twisted Pair Cables	Structured Cabling (S581)	Lesson 7	5/12/2022	5/15/2022
83	Telecommunications Pathways and Spaces	Structured Cabling (S581)	Lesson 8	5/12/2022	6/15/2022
84	Telecommunications Cabling Administration	Structured Cabling (S581)	Lesson 9	5/17/2022	6/22/2022
85	Telecommunications Grounding and Bonding	Structured Cabling (S581)	Lesson 10	5/17/2022	6/22/2022
86	Configuring Structured Cabling Systems	Structured Cabling (S581)	Lesson 11	5/19/2022	6/22/2022
87	Structured Cabling Systems Applications	Structured Cabling (S581)	Lesson 12	5/19/2022	6/22/2022
88	Residential Telecommunications Cabling	Structured Cabling (S581)	Lesson 13	5/24/2022	6/26/2022
89	Certifying the UTP Cabling System	Structured Cabling (S581)	Lesson 14	5/24/2022	5/26/2022