

2022 - 2023 4th Year Syllabus and Schedule

Test Date:	9/5/2022	Transformers	Level	III	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
1	Electrical Safety	Transformers Textbook	Lesson 1	8/15/2022	8/17/2022
2	Special Transformers	Transformers Textbook	Lesson 2	8/17/2022	8/22/2022
3	Special Connections	Transformers Textbook	Lesson 3	8/22/2022	8/24/2022
4	Selection and Installation	Transformers Textbook	Lesson 4	8/24/2022	8/29/2022
5	Maintenance and Troubleshooting	Transformers Textbook	Lesson 5	8/29/2022	9/5/2022

Test Date:	10/3/2022	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	9/5/2022	9/5/2022
7	Manual Pilot Devices	Fundamentals of Motor Control	Lesson 2	9/5/2022	9/7/2022
8	Automatic Pilot Devices	Fundamentals of Motor Control	Lesson 3	9/7/2022	9/12/2022
9	Magnetic Control Relays	Fundamentals of Motor Control	Lesson 4	9/12/2022	9/14/2022
10	Control Transformers	Fundamentals of Motor Control	Lesson 5	9/14/2022	9/19/2022
11	Magnetic Contactors	Fundamentals of Motor Control	Lesson 6	9/19/2022	9/21/2022
12	Basic Motor Starters	Fundamentals of Motor Control	Lesson 7	9/21/2022	9/26/2022
13	Basic Timers	Fundamentals of Motor Control	Lesson 8	9/26/2022	9/28/2022
14	Control Diagrams and Drawings	Fundamentals of Motor Control	Lesson 9	9/28/2022	10/3/2022

Test Date:	11/2/2022	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	10/3/2022	10/5/2022
16	More Electronics for Motor Control Devices	Fundamentals of Motor Control	Lesson 2	10/5/2022	10/10/2022
17	Solid-State Motor Control Pilot Devices	Fundamentals of Motor Control	Lesson 3	10/10/2022	10/12/2022
18	Solid-State Relays	Fundamentals of Motor Control	Lesson 4	10/12/2022	10/17/2022
19	Motor Control Centers	Fundamentals of Motor Control	Lesson 5	10/17/2022	10/19/2022
20	Special Purpose Starters	Fundamentals of Motor Control	Lesson 6	10/19/2022	10/24/2022
21	Electronic Programmable Timers	Fundamentals of Motor Control	Lesson 7	10/24/2022	10/26/2022
22	Special Control Components	Fundamentals of Motor Control	Lesson 8	10/26/2022	10/31/2022
23	AC Motor Speed Control	Fundamentals of Motor Control	Lesson 9	10/31/2022	11/2/2022

Test Date:	11/23/2022	Torque	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
24	Torque Theory	Torque (J242)	Lesson 1	11/21/2022	11/23/2022
25	Threaded Fasteners Basics	Torque (J242)	Lesson 2	11/21/2022	11/23/2022
26	Introduction to Torque Applications	Torque (J242)	Lesson 3	11/21/2022	11/23/2022
27	Torque Products	Torque (J242)	Lesson 4	11/21/2022	11/23/2022
28	Real World Electrical Torque Applications	Torque (J242)	Lesson 5	11/21/2022	11/23/2022

**** Gray Area - Complete during Thanksgiving Break**

Test Date	12/26/2022	Orientation	Level	III	Test Grade
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
29	The National Electrical Benefit Fund (NEBF)	Orientation	Lesson 1	12/14/2022	12/26/2022
30	After Apprenticeship	Orientation	Lesson 2	12/14/2022	12/26/2022
31	Soon to be an Instructor	Orientation	Lesson 3	12/14/2022	12/26/2022
32	This is a National Program	Orientation	Lesson 4	12/14/2022	12/26/2022
33	Keys to Success-Motivation and Leadership	Orientation	Lesson 5	12/14/2022	12/26/2022
34	The National Labor Relations Board	Orientation	Lesson 6	12/14/2022	12/26/2022
35	The Economics of Unemployment	Orientation	Lesson 7	12/14/2022	12/26/2022
36	The Realities of Construction	Orientation	Lesson 8	12/14/2022	12/26/2022

****Gray Area - Complete during December Break**

Test Date:	12/7/2022	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	11/7/2022	11/9/2022
38	Understanding Analog Signals	Fundamentals of Motor Control	Lesson 2	11/9/2022	11/16/2022
39	Analog Pilot Devices	Fundamentals of Motor Control	Lesson 3	11/14/2022	11/16/2022
40	Working With Solid-State Devices in Motor Control	Fundamentals of Motor Control	Lesson 4	11/16/2022	11/21/2022
41	Variable Frequency Drives	Fundamentals of Motor Control	Lesson 5	11/21/2022	11/23/2022
42	Programmable Logic Controllers	Fundamentals of Motor Control	Lesson 6	11/23/2022	11/28/2022
43	Controlling Synchronous, Stepper, and Servo Motors	Fundamentals of Motor Control	Lesson 7	11/28/2022	11/30/2022
44	Networked Motor Control	Fundamentals of Motor Control	Lesson 8	11/30/2022	12/5/2022
45	Troubleshooting Electrical Systems	Fundamentals of Motor Control	Lesson 9	12/5/2022	12/7/2022

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Test Date:	3/6/2023	PLC	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
46	PLC and Critical Safety Practices	PLC's (S631)	Lesson 1	1/16/2023	1/18/2023
47	PLC Electrical Principles, Ratings, and Circuit Calcula	PLC's (S631)	Lesson 2	1/18/2023	1/23/2023
48	PLC Programming Symbols, Diagrams, and Logic Fun	PLC's (S631)	Lesson 3	1/23/2023	1/25/2023
49	PLC Hardware, Memory, and Operating Cycle	PLC's (S631)	Lesson 4	1/25/2023	1/30/2023
50	PLC Systems, Circuits, and Interface Devices	PLC's (S631)	Lesson 5	1/30/2023	2/1/2023
51	PLC Programming Diagrams, Addresses, and Bit Instr	PLC's (S631)	Lesson 6	2/1/2023	2/6/2023
52	PLC Programming Timer and Counter Instructions	PLC's (S631)	Lesson 7	2/6/2023	2/8/2023
53	PLC analog Device Installation, Programming, and Tro	PLC's (S631)	Lesson 8	2/8/2023	2/13/2023
54	PLC Installations and Startup	PLC's (S631)	Lesson 9	2/13/2023	2/15/2023
55	Troubleshooting Methods and Test Instrument Operati	PLC's (S631)	Lesson 10	2/15/2023	2/20/2023
56	Testing and Troubleshooting Electrical Devices and PL	PLC's (S631)	Lesson 11	2/20/2023	2/22/2023
57	Troubleshooting with PLC Software	PLC's (S631)	Lesson 12	2/22/2023	2/27/2023
58	PLC System Maintenance	PLC's (S631)	Lesson 13	2/27/2023	3/6/2023

Test Date:	4/5/2023	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	3/6/2023	3/8/2023
61	The basics of power quality	Power Quality Textbook	Lesson 2	3/8/2023	3/13/2023
62	Safety	Power Quality Textbook	Lesson 3	3/13/2023	3/15/2023
63	Using the right tool	Power Quality Textbook	Lesson 4	3/15/2023	3/20/2023
64	Monitor setup	Power Quality Textbook	Lesson 5	3/20/2023	3/22/2023
65	Data collection and analysis	Power Quality Textbook	Lesson 6	3/22/2023	3/27/2023
66	Practical Examples	Power Quality Textbook	Lesson 7	3/27/2023	3/29/2023
67	Rule of thumb	Power Quality Textbook	Lesson 8	3/29/2023	4/3/2023
68	Mitigation equipment	Power Quality Textbook	Lesson 9	4/3/2023	4/5/2023

Test Date:	5/1/2023	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	4/5/2023	4/10/2023
70	Electrical Systems	Building Automation: Control Dev	Lesson 2	4/10/2023	4/12/2023
71	Lighting Sources and Controls	Building Automation: Control Dev	Lesson 3	4/12/2023	4/17/2023
72	Lighting Systems Control Devices	Building Automation: Control Dev	Lesson 4	4/17/2023	4/19/2023
73	HVAC Systems	Building Automation: Control Dev	Lesson 5	4/19/2023	4/24/2023
74	HVAC Systems Applications	Building Automation: Control Dev	Lesson 6	4/24/2023	4/26/2023
75	Automated Building Operation and Applications	Building Automation: Control Dev	Lesson 7	4/26/2023	5/1/2023

Test Date:	6/21/2023	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	5/3/2023	5/8/2023
77	Introduction to Structured Cabling Standards and Code	Structured Cabling (S581)	Lesson 2	5/8/2023	5/10/2023
78	Structured Cabling Standards	Structured Cabling (S581)	Lesson 3	5/10/2023	5/15/2023
79	Cables and Connectors	Structured Cabling (S581)	Lesson 4	5/15/2023	5/17/2023
80	Structured Cabling System Performance	Structured Cabling (S581)	Lesson 5	5/17/2023	5/22/2023
81	Unshielded Twisted Pair Connecting Hardware	Structured Cabling (S581)	Lesson 6	5/22/2023	5/24/2023
82	Telecommunications Pathways and Spaces	Structured Cabling (S581)	Lesson 7	5/24/2023	5/29/2023
83	Telecommunications Cabling Administration	Structured Cabling (S581)	Lesson 8	5/29/2023	5/31/2023
84	Telecommunications Grounding and Bonding	Structured Cabling (S581)	Lesson 9	5/31/2023	6/5/2023
85	Configuring Structured Cabling Systems	Structured Cabling (S581)	Lesson 10	6/5/2023	6/7/2023
86	Residential Cabling Systems	Structured Cabling (S581)	Lesson 11	6/7/2023	6/12/2023
87	Certifying the UTP Cabling System	Structured Cabling (S581)	Lesson 12	6/12/2023	6/21/2023

Test Date:	7/19/2023	Code, Standards, and Practices 5	Level	I	Test Grade:
Syllabus Number	Title	Book Name	Lesson/Lab #	Date	Due Date
88	Installing Electrical Services	Code, Standards, and Practices 5	Lesson 1	6/21/2023	6/26/2023
89	Swimming Pools, Fountains, and Similar Instal	Code, Standards, and Practices 5	Lesson 2	6/26/2023	6/28/2023
90	Understanding Emergency and Standby System	Code, Standards, and Practices 5	Lesson 3	6/28/2023	7/3/2023
91	Over 1000 volt installations	Code, Standards, and Practices 5	Lesson 4	7/3/2023	7/5/2023
92	Remote-Control, Signaling, and Power-Lim	Code, Standards, and Practices 5	Lesson 5	7/5/2023	7/10/2023
93	2017 NEC Changes - Part 1	Code, Standards, and Practices 5	Lesson 6	7/10/2023	7/12/2023
94	2017 NEC Changes - Part 2	Code, Standards, and Practices 5	Lesson 7	7/12/2023	7/19/2023

**** Official last day is Wednesday, May 31, 2023 **Schedule will change based on class ability to absorb material and testing **This syllabus is a guide, Instructor will approve changes as necessary**