

## 2nd Year Lesson Plan School Year 2024 - 2025

Wk.	Dates	Test	Period	Sub.	Lesson # / Lesson Description	Workbook #
1	9/16 - 9/19	No Test	A.A.	Orien. III	1. The National Electrical Benefit Fund NEBF	LMS
				Orien. III	2. After Apprenticeship	LMS
				Orien. III	3. Soon To be A Journey-Level Worker	LMS
				Orien. III	4. This is a National Program	LMS
			M.M.	Orien. III	5. Keys to Success - Motivation and Leadership	LMS
				Orien. III	6. The National Labor Relations Board	LMS
				Orien. III	7. The Economics of Unemployment	LMS
				Orien. III	8. The Realities of Construction	LMS
			D.H.	Lab	Conduit Bending, Segmented Bending	
2	9/30 - 10/3	Test #1	A.A.	AC Sys.I	1. Reviewing Applications of DC Theory	LMS
				AC Sys.I	2. Understanding Vectors and How to Use Them Effectively	LMS
			M.M.	C. S. & P. 3 - 2023	1. Purpose of Overcurrent Protection & Types of Overcurrents	LMS -CML
				C. S. & P. 3 - 2023	2. Overcurrent Protective Device Categories	LMS -CML
				C. S. & P. 3 - 2023	3. Overcurrent Protective Device Ratings	LMS -CML
			D.H.	Lab	Conduit Bending with Chicago Style Benders	
3	10/14 - 10/17	No Test	A.A.	AC Sys.I	3. Comparing Direct Current to Alternating Current	LMS
				AC Sys.I	4. Making Circuit Calculations for Basic Systems	LMS
				AC Sys.I	5. Becoming Familiar with AC Resistive Circuits	LMS
			M.M.	C. S. & P. 3 - 2023	4. Types of OCPD - Circuit Breakers	LMS -CML
				C. S. & P. 3 - 2023	5. Types of OCPD - Fuses	LMS -CML
				C. S. & P. 3 - 2023	6. Practical Guidelines for OCPD Ampacity Sizing	LMS -CML
D.H.	Lab	AC Theory Lab				
4	10/28 - 10/31	Test #2	A.A.	AC Sys.I	6. Understanding the Basic Characteristics of AC Circuits	LMS
				AC Th.I	1. Understanding Inductance and How it Affects a Circuit	LMS
			M.M.	C. S. & P. 3 - 2023	7. Special Conductor Overcurrent Permitted including Taps	LMS -CML
				C. S. & P. 3 - 2023	8. Calculation of Fault Currents	LMS -CML
				C. S. & P. 4 - 2023	1. Special Occupancies	LMS -CML
			C. S. & P. 4 - 2023	2. Electrical Equipment	LMS -CML	
				D.H.	Lab	Knot Tying
5	11/11 - 11/14	No Test	A.A.	AC Th.I	2. Working with Inductors that are in Series and or Parallel	LMS
				AC Th.I	3. Becoming Familiar with Inductive Reactance	LMS
			M.M.	C. S. & P. 4 - 2023	3. Special Equipment	LMS -CML
				C. S. & P. 4 - 2023	4. Intro to Cable Tray Systems	LMS -CML
				C. S. & P. 4 - 2023	5. Installing Surface Metal Raceway	LMS -CML
			D.H.	Lab	AC Theory Lab	

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6	12/2 - 12/5	Test #3	A.A.	AC Th.I	4. Understanding Capacitance and How It Affects a Circuit	LMS
				AC Th.I	5. Understanding and Working Safely With Capacitors	LMS
			M.M.	C. S. & P. 5 - 2023	1. Installing Electrical Services	LMS -CML
				C. S. & P. 5 - 2023	2. Swimming Poolss, Fountains, and Similar Installations	LMS -CML
				C. S. & P. 5 - 2023	3. Understanding Emergency And Standby Systems	LMS -CML
				C. S. & P. 5 - 2023	4. Over 1000 Volt Installations	LMS -CML
		D.H.	Lab	Skills USA		
7	12/16 - 12/19	No Test	A.A.	AC Th.I	6. Working With Capacitors that are in Series and Parallel	LMS
				AC Th.I	7. Becoming Familiar with Capacitive Reactance	LMS
			M.M.	C. S. & P. 5 - 2023	5. Remote Control, Signaling, and Power Limited Circuits	LMS -CML
				C. S. & P. 6 - 2023	1. Motor Branch Circuit Devices & Protection NEC Art. 430	LMS -CML
				C. S. & P. 6 - 2023	2. Motor Branch Circuits and AC & Refrigeration Equip.	LMS -CML
				C. S. & P. 6 - 2023	3. Transformer Protection - NEC Art. 450	LMS -CML
		D.H.	Lab	AC Theory Lab		
8	1/13 - 1/16	Test #4	A.A.	AC Th.II	1. Comprehending the Parameters of Series RL Circuits	LMS
				AC Th.II	2. Comprehending the Parameters of Series RC Circuits	LMS
				AC Th.II	3. Comprehending and Analyzing Series RLC Circuits	LMS
			M.M.	C. S. & P. 6 - 2023	4. Interrupting Rating: Fully Rated and Series Rated Systems	LMS -CML
				C. S. & P. 6 - 2023	5. Equipment Short-Circuit Protection	LMS -CML
				C. S. & P. 6 - 2023	6. Selective Coordination	LMS -CML
			C. S. & P. 6 - 2023	7. Ground-Fault Protection of Equipment	LMS -CML	
		D.H.	Lab	Motors Lab #1 (Make a Small Motor)		
9	1/27 - 1/30	No Test	A.A.	AC Th.II	4.Understanding and Working with Parallel RL Circuits	LMS
				AC Th.II	5. Understanding and Working with Parallel RC Circuits	LMS
			M.M.	Motors for Elect.	1. Magnetism and Induction	LMS -CML
				Motors for Elect.	2. Motor Nameplates	LMS -CML
				Motors for Elect.	3. AC Alternators	LMS -CML
					D.H.	Lab
10	2/10 - 2/13	Test #5	A.A.	AC Th.II	6. Comprehending & Analyzing Parallel RLC Circuits	LMS
				AC Th.II	7. Identifying and Working with LC Circuits	LMS
			M.M.	Motors for Elect.	4. Three-Phase Motors	LMS -CML
				Motors for Elect.	5. Motor Types	LMS -CML
				Motors for Elect.	6. Single-Phase Motors	LMS -CML
				Motors for Elect.	7. Motor Protection	LMS -CML
		D.H.	Lab	3-way & 4-way Switching Lab		
11	2/24 - 2/27	No Test	A.A.	AC Th.II	8. Comparing Series and Parallel RLC Circuits	LMS
				AC Th.II	9. Analyzing and Working with Combination RLC Circuits	LMS
			M.M.	Motors for Elect.	8. DC Motors	LMS -CML
				Motors for Elect.	9. Starting and Stopping Motors	LMS -CML
				Motors for Elect.	10. Motor Alignment	LMS -CML
					D.H.	Lab

Monday's Class in on  
Tuesday - MLK Day

Wk.	Dates	Test	Period	Sub.	Lesson # / Lesson Description	Workbook #
12	3/10 - 3/13	Test #6	A.A.	AC Th. III	1. Power Factor	LMS
				AC Th. III	2. Power Factor Correction	LMS
			M.M.	Motors for Elect.	11. Troubleshooting Motors	LMS -CML
				Motor Control	1. Introduction to Motor Control and the Industry	LMS -CML
				Motor Control	2. Electrical Safety with Motor Controls	LMS -CML
		D.H.	Lab	Motors Lab #2 (AC & DC Motors, 4 Stations)		
13	3/24 - 3/27	No Test	A.A.	AC Th. III	3. General Use Test Instruments	LMS
				AC Th. III	4. Electronic Circuit Test Instruments	LMS
			M.M.	Motor Control	3. Symbols, Diagrams, Drawings, and Logic	LMS -CML
				Motor Control	4. Input and Output Devices	LMS -CML
				Motor Control	5. Solenoids and Control Relays	LMS -CML
		D.H.	Lab	Motor Control Lab #1		
14	4/7 - 4/10	Test #7	A.A.	AC Th. III	5. Introduction to Generators	LMS
				AC Th. III	6. Understanding How the DC Generator Works	LMS
			M.M.	Motor Control	6. Control Transformers	LMS -CML
				Motor Control	7. MC Centers, Contactors, and Motor Starters	LMS -CML
				Motor Control	8. Timing and Counting Devices	LMS -CML
		D.H.	Lab	Motor Control Lab #2		
15	4/21 - 4/24	No Test	A.A.	AC Th. III	7. Understanding the Design and Function of AC Generators	LMS
				AC Th. III	8. Introduction to 3-Phase Systems	LMS
			M.M.	Motor Control	9. Solid-State Devices	LMS -CML
				Motor Control	10. Programmable Controllers	LMS -CML
				Motor Control	11. Motor Drives	LMS -CML
		D.H.	Lab	Motor Control Lab #3 (Frequency Drives)		
16	5/5 - 5/8	Test #8	A.A.	AC Th. IV	1. Series Resonance	LMS
				AC Th. IV	2. Parallel Resonance	LMS
			M.M.	Motor Control	12. Industrial Networks	LMS -CML
				Motor Control	13. System-Wide Troubleshooting	LMS -CML
					D.H.	Lab
17	5/19 - 5/22	No Test	A.A.	AC Th. IV	3. Series - Parallel Resonant Circuit Comparisons	LMS
				AC Th. IV	4. Filters	LMS
			M.M.	Res.Code 2	1. Selecting the Proper Box or Conduit Body Based on the NEC	LMS
				Res.Code 2	2. Branch Circuit Requirements for Dwelling Units	LMS
				Res.Code 2	3. Sizing Building Wire for Dwelling Units	LMS
			Res.Code 2	4. Calculating Conductor Ampacity	LMS	
		D.H.	Lab	Motor Control Lab #5		
18	6/2 - 6/5	Test #9	A.A.	Blu.Prt.II	1. Reviewing Basic Fundamentals of Blueprints and Drawings	LMS
				Blu.Prt.II	4. Understanding, Evaluating Blueprint Specifications	LMS
			M.M.	Blu.Prt.III	1. Review and Introduction	LMS
				Blu.Prt.III	2. Industrial Specifications	LMS
					D.H.	Lab

Wk.	Dates	Test	Period	Sub.	Lesson # / Lesson Description	Workbook #		
19	6/16 - 6/19	No Test	A.A.	Blu.Prt.II	5. Interpreting Blueprint Schedules and Locating Components	LMS		
				Blu.Prt.II	6. Becoming Familiar with Blueprint Systems Integration	LMS		
				Blu.Prt.II	7. Learning How to Effectively Use Blueprints			
			M.M.	Rigging for Ele. Ind.	1. Hoisting Safety	LMS -CML		
				Rigging for Ele. Ind.	2. Cranes	LMS -CML		
				Rigging for Ele. Ind.	3. Lift Planning	LMS -CML		
				Rigging for Ele. Ind.	4. Signaling	LMS -CML		
				Rigging for Ele. Ind.	5. Load Weight and Balance	LMS -CML		
D.H.	Lab	Motor Control Lab #7						
20	6/30 - 7/3	Test #10	A.A.	Blu.Prt.II	2. Analyzing and Laying Out Residential Blueprints	LMS		
				Blu.Prt.II	3. Understanding Job Costs & How to do Actual Takeoff	LMS		
			<b>*** BLUEPRINT PROJECT START ***</b>					
			M.M.	Rigging for Ele. Ind.	6. Slings and Sling Hitches	LMS -CML		
				Rigging for Ele. Ind.	7. Rigging Equipment Maintenance	LMS -CML		
				Rigging for Ele. Ind.	8. Rigging Hardware	LMS -CML		
				Rigging for Ele. Ind.	9. Chains and Chain Slings	LMS -CML		
			D.H.	Lab	Building Drawings			
21	7/14 - 7/17	No Test	A.A.	Blu.Prt.III	3. Industrial Prints I	LMS		
				Blu.Prt.III	4. Industrial Prints II	LMS		
				Blu.Prt.III	5. Industrial Prints III	LMS		
			<b>*** BLUEPRINT PROJECT DUE ***</b>					
			M.M.	Rigging for Ele. Ind.	11. Wire Rope and Wire Rope Slings	LMS -CML		
				Rigging for Ele. Ind.	12. Fiber Rope and Knots	LMS -CML		
				Rigging for Ele. Ind.	13. Block and Tackle	LMS -CML		
				Rigging for Ele. Ind.	14. Hoists	LMS -CML		
D.H.	Lab	Rigging Lab						
22	8/4 - 8/7	Test #11	A.A.	Res.Code 2	5. NEC Requirements for Cable Assemblies	LMS		
				Res.Code 2	6. Wiring Methods for Dwelling Units General Installation Req.	LMS		
				Res.Code 2	7. NEC Requirements for Switch and Receptacles	LMS		
			M.M.	Trans. Princ. & Appl.	1. Transformers Operation	LMS -CML		
				Trans. Princ. & Appl.	2. Transformer Classification	LMS -CML		
			D.H.	Lab	Transformer Lab			
23	8/18 - 8/21	No Test	A.A.	Res.Code 2	8. NEC Requirements for Specialty Circuit Interrupters	LMS		
				Res.Code 2	9. NEC Requirements for Luminaires in Dwelling Units	LMS		
				Res.Code 2	10. Nec Requirements for Lighting & Recept. Branch Circuits	LMS		
				Res.Code 2	11. NEC Requirements for Metal Raceways-Types EMT & FMC	LMS		
			M.M.	Trans. Princ. & Appl.	3. Single -Phase Transformer Connections	LMS -CML		
				Trans. Princ. & Appl.	4. 3-Phase Transformer Connections	LMS -CML		
			D.H.	Lab	Cadweld Lab			

Thursday's Class in  
on Wed. - July 4th

Wk.	Dates	Test	Period	Sub.	Lesson # / Lesson Description	Workbook #
24	9/2 - 9/4	<b>Test #12</b>	A.A.	Lightning Protect.	1. Lightning Protection Systems Introduction	LMS -CML
				Lightning Protect.	2. Lightning Protection Systems - Ground Work	LMS -CML
				Lightning Protect.	3. Down Conductors and Bonding	LMS -CML
				Lightning Protect.	4. Roof Tops	LMS -CML
			M.M.	Lightning Protect.	5. Concealed and Structural Steel Systems	LMS -CML
				Lightning Protect.	6. Bonding Requirements and Potential Equalization	LMS -CML
				Lightning Protect.	7. Surge Protection Devices	LMS -CML
			D.H.	Lab	Lightning Protection	