

## 2nd Year Lesson Plan School Year 2023 - 2024

Wk.	Dates	Test	Period	Sub.	Lesson # / Lesson Description	Workbook #
1	9/18 - 9/21/23	No Test	A.A.	Orien. II	6. American Labor History	LMS
				Orien. II	7. Pride in Your Industry	LMS
				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
			M.M.	Orien. III	4. This is a National Program	LMS
				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	Review DC Theory Room 121				
2	10/2 - 10/5/23	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	1. Purpose of Overcurrent Protection & Types of Overcurrents	LMS
				C S P.3	2. Overcurrent Protective Device Categories	LMS
				C S P.3	3. Overcurrent Protective Device Ratings	LMS
			D.H.	Lab	Pipe Bending Review / Milwaukee Power Tools Lab	
3	10/16 - 10/19/23	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	4. Types of OCPD - Circuit Breakers	LMS
				C S P.3	5. Types of OCPD - Fuses	LMS
				C S P.3	6. Practical Guidelines for OCPD Ampacity Sizing	LMS
			D.H.	Lab	AC Theory Lab	
4	10/30 - 11/2/23	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	7. Special Conductor Overcurrent Permitted including Taps	LMS
				C S P.3	8. Calculation of Fault Currents	LMS
				C S P.3	9. Panelboards, Switchboards and Switchgear SCCR	LMS
				C S P.6	6. Equipment Short Circuit Current Protection	LMS
			D.H.	Lab	Knot Tying	
5	11/13 - 11/16/23	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.6	1. Reviewing Key OCPD Concepts	LMS
				C S P.6	2. Motor Branch Circuit Devices & Protection NEC Art. 430	LMS
				C S P.6	3. Motor Branch Circuits & HVACR	LMS
			D.H.	Lab	AC Theory Lab	

Wk.	Dates	Test	Period	Sub.	Lesson # / Lesson Description	Workbook #
6	12/4 - 12/7/23	<b>Test #3</b>	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.	Motors II	6. Motor Branch Circuits	LMS
				Motors II	7. Motor Branch Circuit Protection	LMS
				Motors II	8. Motor Overload Protection	LMS
			Motors II	9. Sizing Motor Disconnect	LMS	
D.H.	Lab	Skills USA				
7	12/18 - 12/21/23	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.6	4. Transformer Protection	LMS
				C S P.6	5. Interrupting Rating: Fully & Series Rated Systems	LMS
				C S P.6	7. Selective Coordination	LMS
			C S P.6	8. Ground Fault Protection of Equipment	LMS	
D.H.	Lab	AC Theory Lab				
8	1/16 - 1/18/24	<b>Test #4</b>	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.	Motors I	1. Magnetism and Induction	LMS
				Motors I	2. Motor Nameplates	LMS
				Motors I	3. AC Alternators	LMS
D.H.	Lab	Motors Lab #1 (Make a Small Motor)				
9	1/29 - 2/1/24	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
				AC Th.II	6. Comprehending & Analyzing Parallel RLC Circuits	LMS
			M.M.	Motors I	4. Three Phase Motors	LMS
				Motors I	5. Squirrel Cage Motors	LMS
				Motors II	1. Wound Rotor Motors	LMS
D.H.	Lab	AC Theory Lab				
10	2/12 - 2/15/24	<b>Test #5</b>	A.A.	AC Th.II	7. Identifying and Working with LC Circuits	LMS
				AC Th.II	8. Comparing Series and Parallel RLC Circuits	LMS
			M.M.	Motors II	2. Single-Phase Motors	LMS
				Motors II	3. Motor Protection	LMS
				Motors II	4. DC Motors and Generators	LMS
			Motors II	5. Starting	LMS	
D.H.	Lab	Motors Lab #2 (AC & DC Motors, 4 Stations)				
11	2/26 - 2/29/24	No Test	A.A.	AC Th.II	9. Analyzing and Working with Combination RLC Circuits	LMS
				AC Th. III	1. Power Factor	LMS
				AC Th. III	2. Power Factor Correction	LMS
			M.M.	Motors III	1. Synchronous Motors	LMS
				Motors III	2. Braking	LMS
				Motors III	3. Multispeed Motors	LMS
D.H.	Lab	AC Theory Lab				

Monday's Class in on  
Tuesday - MLK Day

Wk.	Dates	Test	Period	Sub.	Lesson # / Lesson Description	Workbook #
12	3/11 - 3/14/24	Test #6	A.A.	AC Th. III	3. General Use Test Instruments	LMS
				AC Th. III	4. Electronic Circuit Test Instruments	LMS
			M.M.	Motors III	4. Adjustable-Speed Drives	LMS
				Motors III	5. Bearings	LMS
				Motors III	6. Drive Systems & Clutches	LMS
			D.H.	Lab	Motors Lab #3 (Frequency Drives)	
13	3/25 - 3/28/24	No Test	A.A.	AC Th. III	5. Introduction to Generators	LMS
				AC Th. III	6. Understanding How the DC Generator Works	LMS
				AC Th. III	7. Understanding the Design and Function of AC Generators	LMS
			M.M.	Motors III	7. Motor Alignment	LMS
				Motors III	8. Troubleshooting Motors	LMS
				Motors III	9. Special-Application Motors	LMS
D.H.	Lab	Conduit Bending				
14	4/8 - 4/11/24	Test #7	A.A.	AC Th. III	8. Introduction to 3-Phase Systems	LMS
				AC Th. IV	1. Series Resonance	LMS
			M.M.	Mtr. Con.I	1. Introduction to Magnetic Motor Control	LMS
				Mtr. Con.I	2. Manual Pilot Devices	LMS
				Mtr. Con.I	3. Automatic Pilot Devices	LMS
			D.H.	Lab	Motor Control Lab #1	
15	4/22 - 4/25/24	No Test	A.A.	AC Th. IV	2. Parallel Resonance	LMS
				AC Th. IV	3. Series - Parallel Resonant Circuit Comparisons	LMS
				AC Th. IV	4. Filters	LMS
			M.M.	Mtr. Con.I	4. Magnetic Control Relays	LMS
				Mtr. Con.I	5. Control Transformers	LMS
				Mtr. Con.I	6. Magnetic Contactors	LMS
D.H.	Lab	Motor Control Lab #2				
16	5/6 - 5/9/24	Test #8	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.	Mtr. Con.I	7. Basic Motor Starters	LMS
				Mtr. Con.I	8. Basic Timers	LMS
				Mtr. Con.I	9. Control Diagrams and Drawings	LMS
			D.H.	Lab	Motor Control Lab #3	
17	5/20 - 5/23/24	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	LMS
			M.M.	Rigging I	1. Hoisting Safety	LMS
				Rigging I	2. Cranes	LMS
				Rigging I	3. Lift Planning	LMS
				Rigging I	4. Signaling	LMS
				Rigging I	5. Load Weight and Balance	LMS
				Rigging I	6. Slings and Sling Hitches	LMS
				Rigging I	7. Rigging Equipment Maintenance	LMS
			D.H.	Lab	Rigging Lab	

Wk.	Dates	Test	Period	Sub.	Lesson # / Lesson Description	Workbook #		
18	6/3 - 6/6/24	<b>Test #9</b>	A.A.	Res.Code	1. Selecting the Proper Box or Conduit Body Based on the NEC	J293SW.J		
				Res.Code	2. Branch Circuit Requirements for Dwelling Units	J293SW.J		
				Res.Code	3. Sizing Building Wire for Dwelling Units	J293SW.J		
				Res.Code	4. Calculating Conductor Ampacity	J293SW.J		
			M.M.	Rigging I	8. Rigging Hardware	LMS		
				Rigging I	9. Chains and Chain Slings	LMS		
				Rigging I	10. Synthetic Slings	LMS		
				Rigging I	11. Wire Rope and Wire Rope Slings	LMS		
				Rigging I	12. Fiber Rope and Knots	LMS		
				Rigging I	13. Block and Tackle	LMS		
				Rigging I	14. Hoists	LMS		
D.H.	Lab	Building Drawings						
19	6/17 - 6/20/24	No Test	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		
			*** BLUEPRINT PROJECT START ***					
			M.M.	Blu.Prt.III	1. Review and Introduction	LMS		
				Blu.Prt.III	2. Industrial Specifications	LMS		
			D.H.	Lab	Motor Control Lab			
20	7/1 - 7/3/24	<b>Test #10</b>	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.	Blu.Prt.III	3. Industrial Prints I	LMS		
				Blu.Prt.III	4. Industrial Prints II	LMS		
				Blu.Prt.III	5. Industrial Prints III	LMS		
			D.H.	Lab	Motor Control Lab			
21	7/15 - 7/18/24	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		
			*** BLUEPRINT PROJECT DUE ***					
			M.M.	Trans. I	1. Magnetism and Electromagnetism	LMS		
				Trans. I	2. Transformers Operation Principles	LMS		
				Trans. I	3. Transformer Connections	LMS		
			D.H.	Lab	Transformer Lab #1 15kV Transformers			
			22	8/5 - 8/8/24	<b>Test #11</b>	A.A.	C S P.4	1. Special Occupancies
C S P.4	2. Electrical Equipment	LMS						
C S P.4	3. Special Equipment	LMS						
M.M.	Trans. I	4. Real World Transformer Connections				LMS		
	Trans. I	5. Harmonics				LMS		
	Trans. I	6. Power Generation and Distribution				LMS		
D.H.	Lab	Transformer Lab #2						

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

Wk.	Dates	Test	Period	Sub.	Lesson # / Lesson Description	Workbook #
23	8/19 - 8/22/24	No Test	A.A.	C S P.4	4. Intro to Cable Tray Systems	LMS
				C S P.4	5. Installing Surface Metal Raceways	LMS
				C S P.5	1. Installing Electrical Services	LMS
				C S P.5	2. Swimming Pools, Fountains and Similar Installations	LMS
			M.M.	C S P.5	3. Understanding emergency and Standby Systems	LMS
				C S P.5	4. Over 1,000 Volt Installations	LMS
				C S P.5	5. Remote Control, Signaling and Power Limited Circuits	LMS
				C S P.5	6. 2020 NEC Changes - Part 1	LMS
			C S P.5	7. 2020 NEC Changes - Part 2	LMS	
			D.H.	Lab	Cadweld Lab ???	
24	9/3 - 9/5/24	Test #12	A.A.	Ltng. Pro.	1. Lightning Protection Systems Introduction	LMS
				Ltng. Pro.	2. Lightning Protection Systems - Ground Work	LMS
				Ltng. Pro.	3. Down Conductors and Bonding	LMS
				Ltng. Pro.	4. Roof Tops	LMS
			M.M.	Ltng. Pro.	5. Concealed and Structural Steel Systems	LMS
				Ltng. Pro.	6. Bonding Requirements and Potential Equalization	LMS
				Ltng. Pro.	7. Surge Protection Devices	LMS
			D.H.	Lab	Lightning Protection ???	

Monday's Class in on  
Tuesday - Labor Day