

**ELECTRICAL TRAINEE PROGRAM OUTLINE  
ELECTRICAL YEAR ONE**

	<b>SUBJECT</b>	<b>MODULE #</b>	<b>HOURS</b>
<b>ELECTRICAL 1A</b>			
1	Orientation to the Electrical Trade	26101-14	4
2	Orientation to the Electrical Trade	26101-14	4
3	Electrical Safety	26102-14	4
4	Electrical Safety	26102-14	4
5	Electrical Safety	26102-14	4
6	Hand Bending	26107-14	4
7	Hand Bending	26107-14	4
8	Hand Bending	26107-14	4
9	Hand Bending	26107-14	4
10	Raceways and Fittings	26107-14	4
11	Raceways and Fittings	26108-14	4
12	Raceways and Fittings	26108-14	4
<b>ELECTRICAL 1B</b>			
1	Introduction to the Electrical Trade	26103-14	4
2	Introduction to the Electrical Trade	26103-14	4
3	Introduction to the Electrical Trade	26103-14	4
4	Electrical Theory	26104-14	4
5	Electrical Theory	26104-14	4
6	Electrical Theory	26104-14	4
7	Electrical Test Equipment	26112-14	4
8	Electrical Test Equipment	26112-14	4
9	Electrical Test Equipment	26112-14	4
10	Introduction to the National Electrical Code	26105-14	4
11	Introduction to the National Electrical Code	26105-14	4
12	Introduction to the National Electrical Code	26105-14	4
<b>ELECTRICAL 1C</b>			
1	Device Boxes	26106-14	4
2	Device Boxes	26106-14	4
3	Device Boxes	26106-14	4
4	Conductors and Cables	26109-14	4
5	Conductors and Cables	26109-14	4
6	Conductors and Cables	26109-14	4
7	Basic Electrical Construction Drawings	26110-14	4
8	Basic Electrical Construction Drawings	26110-14	4
9	Basic Electrical Construction Drawings	26110-14	4
10	Residential Electrical Services	26111-14	4
11	Residential Electrical Services	26111-14	4
12	Residential Electrical Services	26111-14	4

## ELECTRICAL YEAR TWO

SUBJECT	MODULE #	HOURS
<b>ELECTRICAL 2A</b>		
1 Alternating Current	26201-14	4
2 Alternating Current	26201-14	4
3 Alternating Current	26201-14	4
4 Alternating Current	26201-14	4
5 Motors: Theory and Application	26202-14	4
6 Motors: Theory and Application	26202-14	4
7 Motors: Theory and Application	26202-14	4
8 Motors: Theory and Application	26202-14	4
9 Grounding and Bonding	26209-14	4
10 Grounding and Bonding	26209-14	4
11 Grounding and Bonding	26209-14	4
12 Grounding and Bonding	26209-14	4
<b>ELECTRICAL 2B</b>		
1 Conduit Bending	26204-14	4
2 Conduit Bending	26204-14	4
3 Conduit Bending	26204-14	4
4 Conduit Bending	26204-14	4
5 Pull and Junction Boxes	26205-14	4
6 Pull and Junction Boxes	26205-14	4
7 Pull and Junction Boxes	26205-14	4
8 Pull and Junction Boxes	26205-14	4
9 Conductor Installations	26206-14	4
10 Conductor Installations	26206-14	4
11 Cable Tray	26207-14	4
12 Cable Tray	26207-14	4
<b>ELECTRICAL 2C</b>		
1 Conductor Termination and Splices	26208-14	4
2 Conductor Termination and Splices	26208-14	4
3 Conductor Termination and Splices	26208-14	4
4 Circuit Breakers and Fuses	26210-14	4
5 Circuit Breakers and Fuses	26210-14	4
6 Circuit Breakers and Fuses	26210-14	4
7 Electric Lighting	26203-14	4
8 Electric Lighting	26203-14	4
9 Electric Lighting	26203-14	4
10 Control Systems and Fundamental Concepts	26211-14	4
11 Control Systems and Fundamental Concepts	26211-14	4
12 Control Systems and Fundamental Concepts	26211-14	4

## ELECTRICAL YEAR THREE

SUBJECT	MODULE #	HOURS	
<b>ELECTRICAL 3A</b>			
1	Load Calculations – Branch and Feeder Circuits	26301-14	4
2	Load Calculations – Branch and Feeder Circuits	26301-14	4
3	Load Calculations – Branch and Feeder Circuits	26301-14	4
4	Conductor Selection and Calculations	26302-14	4
5	Conductor Selection and Calculations	26302-14	4
6	Conductor Selection and Calculations	26302-14	4
7	Practical Applications of Lighting	26303-14	4
8	Practical Applications of Lighting	26303-14	4
9	Practical Applications of Lighting	26303-14	4
10	Overcurrent Protection	26305-14	4
11	Overcurrent Protection	26305-14	4
12	Overcurrent Protection	26305-14	4
<b>ELECTRICAL 3B</b>			
1	Distribution Equipment	26306-14	4
2	Distribution Equipment	26306-14	4
3	Distribution Equipment	26306-14	4
4	Transformers	26307-14	4
5	Transformers	26307-14	4
6	Transformers	26307-14	4
7	Commercial Electrical Services	26308-14	4
8	Commercial Electrical Services	26308-14	4
9	Commercial Electrical Services	26308-14	4
10	Voice, Data and Video	26310-14	4
11	Voice, Data and Video	26310-14	4
12	Voice, Data and Video	26310-14	4
<b>ELECTRICAL 3C</b>			
1	Motor Calculations	26309-14	4
2	Motor Calculations	26309-14	4
3	Motor Calculations	26309-14	4
4	Motor Calculations	26309-14	4
5	Motor Controls	26311-14	4
6	Motor Controls	26311-14	4
7	Motor Controls	26311-14	4
8	Motor Controls	26311-14	4
9	Hazardous Locations	26303-14	4
10	Hazardous Locations	26303-14	4
11	Hazardous Locations	26303-14	4
12	Hazardous Locations	26303-14	4

## ELECTRICAL YEAR FOUR

SUBJECT	MODULE #	HOURS	
<b>ELECTRICAL 4A</b>			
1	Load Calculations – Feeders and Services	26401-14	4
2	Load Calculations – Feeders and Services	26401-14	4
3	Load Calculations – Feeders and Services	26401-14	4
4	Health Care Facilities	26402-14	4
5	Health Care Facilities	26402-14	4
6	Health Care Facilities	26402-14	4
7	Standby and Emergency Systems	26403-14	4
8	Standby and Emergency Systems	26403-14	4
9	Standby and Emergency Systems	26403-14	4
10	Basic Electronic Theory	26404-14	4
11	Basic Electronic Theory	26404-14	4
12	Basic Electronic Theory	26404-14	4
<b>ELECTRICAL 4B</b>			
1	Fire Alarm Systems	26405-14	4
2	Fire Alarm Systems	26405-14	4
3	Fire Alarm Systems	26405-14	4
4	Specialty Transformers	26406-14	4
5	Specialty Transformers	26406-14	4
6	Specialty Transformers	26406-14	4
7	Advanced Controls	26407-14	4
8	Advanced Controls	26407-14	4
9	Advanced Controls	26407-14	4
10	HVAC Controls	26408-14	4
11	HVAC Controls	26408-14	4
12	HVAC Controls	26408-14	4
<b>ELECTRICAL 4C</b>			
1	Heating Tracing and Freeze Protection	26409-14	4
2	Heating Tracing and Freeze Protection	26409-14	4
3	Heating Tracing and Freeze Protection	26409-14	4
4	Motor Operation and Maintenance	26410-14	4
5	Motor Operation and Maintenance	26410-14	4
6	Motor Operation and Maintenance	26410-14	4
7	Medium – Voltage Terminations/Splices	26411-14	4
8	Medium – Voltage Terminations/Splices	26411-14	4
9	Medium – Voltage Terminations/Splices	26411-14	4
10	Special Locations	26412-14	4
11	Special Locations	26412-14	4
12	Special Locations	26412-14	4

## ELECTRICAL YEAR FIVE

SUBJECT	MODULE #	HOURS	
<b>ELECTRICAL 5A – PROGRAMMABLE CONTROLLERS</b>			
1	Understanding Input / Output	4	
2	Processor Units / Numbering Systems	4	
3	Memory Organization	4	
4	Understanding & Using Ladder Diagrams	4	
5	Relay Type Instructions	4	
6	Programming Devices	4	
7	Small Programmable Controllers	4	
8	Latching & Master Control Relays	4	
9	Programming Timers & Counters	4	
10	Data Manipulation / Arithmetic	4	
11	Sequencers	4	
12	Start-up & Troubleshooting	4	
<b>ELECTRICAL 5B</b>			
1	Energy Management	20510	4
2	Energy Management	20510	4
3	Medical Systems	20506	4
4	Medical Systems	20506	4
5	Voice & Data Systems	20502	4
6	Voice & Data Systems	20502	4
7	Voice & Data Systems	20502	4
8	Fiber Optics	20504	4
9	Fiber Optics	20504	4
10	Project Management – Plan Scheduling		4
11	Project Management – Plan Documentation		4
12	Project Management – Plan Review		4
<b>ELECTRICAL 5C / NEC PREPARATION CLASS</b>			
1	Interpret Requirements of the NEC		4
2	Interpret Requirements of the NEC		4
3	Help you become familiar with the NEC		4
4	How the NEC is structured		4
5	How the NEC is structured		4
6	Learn basic math and electric formulas		4
7	Series and Parallel Circuits		4
8	How to quickly find answers by identifying keywords		4
9	Find answers by use of table of contents and index		4
10	How to read tables		4
11	How to prepare for and take the test		4
12	How to prepare for and take the test		4