

**ELECTRICAL TRAINEE PROGRAM OUTLINE**  
**ELECTRICAL YEAR ONE – NCCER Electrical Trainee Guide Level 1 - 10th Edition**

SUBJECT	MODULE #	HOURS	
<b>ELECTRICAL 1A</b>			
1	Orientation to the Electrical Trade	26101-20	4
2	Orientation to the Electrical Trade	26101-20	4
3	Electrical Safety	26102-20	4
4	Electrical Safety	26102-20	4
5	Electrical Safety	26102-20	4
6	Hand Bending	26107-20	4
7	Hand Bending	26107-20	4
8	Hand Bending	26107-20	4
9	Hand Bending	26107-20	4
10	Raceways and Fittings	26108-20	4
11	Raceways and Fittings	26108-20	4
12	Raceways and Fittings	26108-20	4
<b>ELECTRICAL 1B</b>			
1	Introduction to the Electrical Circuits	26103-20	4
2	Introduction to the Electrical Circuits	26103-20	4
3	Introduction to the Electrical Circuits	26103-20	4
4	Electrical Theory	26104-20	4
5	Electrical Theory	26104-20	4
6	Electrical Theory	26104-20	4
7	Electrical Test Equipment	26112-20	4
8	Electrical Test Equipment	26112-20	4
9	Electrical Test Equipment	26112-20	4
10	Introduction to the National Electrical Code	26105-20	4
11	Introduction to the National Electrical Code	26105-20	4
12	Introduction to the National Electrical Code	26105-20	4
<b>ELECTRICAL 1C</b>			
1	Device Boxes	26106-20	4
2	Device Boxes	26106-20	4
3	Device Boxes	26106-20	4
4	Conductors and Cables	26109-20	4
5	Conductors and Cables	26109-20	4
6	Conductors and Cables	26109-20	4
7	Basic Electrical Construction Drawings	26110-20	4
8	Basic Electrical Construction Drawings	26110-20	4
9	Basic Electrical Construction Drawings	26110-20	4
10	Residential Electrical Services	26111-20	4
11	Residential Electrical Services	26111-20	4
12	Residential Electrical Services	26111-20	4

## **ELECTRICAL YEAR TWO – NCCER Electrical Trainee Guide Level 2 - 10th Edition**

	<b>SUBJECT</b>	<b>MODULE #</b>	<b>HOURS</b>
<b>ELECTRICAL 2A</b>			
1	Alternating Current	26201-20	4
2	Alternating Current	26201-20	4
3	Alternating Current	26201-20	4
4	Alternating Current	26201-20	4
5	Motors: Theory and Application	26202-20	4
6	Motors: Theory and Application	26202-20	4
7	Motors: Theory and Application	26202-20	4
8	Motors: Theory and Application	26202-20	4
9	Grounding and Bonding	26209-20	4
10	Grounding and Bonding	26209-20	4
11	Grounding and Bonding	26209-20	4
12	Grounding and Bonding	26209-20	4
<b>ELECTRICAL 2B</b>			
1	Conduit Bending	26204-20	4
2	Conduit Bending	26204-20	4
3	Conduit Bending	26204-20	4
4	Conduit Bending	26204-20	4
5	Pull and Junction Boxes	26205-20	4
6	Pull and Junction Boxes	26205-20	4
7	Pull and Junction Boxes	26205-20	4
8	Pull and Junction Boxes	26205-20	4
9	Conductor Installations	26206-20	4
10	Conductor Installations	26206-20	4
11	Cable Tray	26207-20	4
12	Cable Tray	26207-20	4
<b>ELECTRICAL 2C</b>			
1	Conductor Termination and Splices	26208-20	4
2	Conductor Termination and Splices	26208-20	4
3	Conductor Termination and Splices	26208-20	4
4	Circuit Breakers and Fuses	26210-20	4
5	Circuit Breakers and Fuses	26210-20	4
6	Circuit Breakers and Fuses	26210-20	4
7	Electric Lighting	26203-20	4
8	Electric Lighting	26203-20	4
9	Electric Lighting	26203-20	4
10	Control Systems and Fundamental Concepts	26211-20	4
11	Control Systems and Fundamental Concepts	26211-20	4
12	Control Systems and Fundamental Concepts	26211-20	4

## **ELECTRICAL YEAR THREE – NCCER Electrical Trainee Guide Level 3 - 10th Edition**

<b>SUBJECT</b>	<b>MODULE #</b>	<b>HOURS</b>	
<b>ELECTRICAL 3A</b>			
1	Load Calculations – Branch and Feeder Circuits	26301-20	4
2	Load Calculations – Branch and Feeder Circuits	26301-20	4
3	Load Calculations – Branch and Feeder Circuits	26301-20	4
4	Conductor Selection and Calculations	26302-20	4
5	Conductor Selection and Calculations	26302-20	4
6	Conductor Selection and Calculations	26302-20	4
7	Practical Applications of Lighting	26303-20	4
8	Practical Applications of Lighting	26303-20	4
9	Practical Applications of Lighting	26303-20	4
10	Overcurrent Protection	26305-20	4
11	Overcurrent Protection	26305-20	4
12	Overcurrent Protection	26305-20	4
<b>ELECTRICAL 3B</b>			
1	Distribution Equipment	26306-20	4
2	Distribution Equipment	26306-20	4
3	Distribution Equipment	26306-20	4
4	Transformers	26307-20	4
5	Transformers	26307-20	4
6	Transformers	26307-20	4
7	Commercial Electrical Services	26308-20	4
8	Commercial Electrical Services	26308-20	4
9	Commercial Electrical Services	26308-20	4
10	Voice, Data and Video	26310-20	4
11	Voice, Data and Video	26310-20	4
12	Voice, Data and Video	26310-20	4
<b>ELECTRICAL 3C</b>			
1	Motor Calculations	26309-20	4
2	Motor Calculations	26309-20	4
3	Motor Calculations	26309-20	4
4	Motor Calculations	26309-20	4
5	Motor Controls	26311-20	4
6	Motor Controls	26311-20	4
7	Motor Controls	26311-20	4
8	Motor Controls	26311-20	4
9	Hazardous Locations	26304-20	4
10	Hazardous Locations	26304-20	4
11	Hazardous Locations	26304-20	4
12	Hazardous Locations	26304-20	4

## **ELECTRICAL YEAR FOUR – NCCER Electrical Trainee Guide Level 4 - 10th Edition**

	<b>SUBJECT</b>	<b>MODULE #</b>	<b>HOURS</b>
<b>ELECTRICAL 4A</b>			
1	Load Calculations – Feeders and Services	26401-20	4
2	Load Calculations – Feeders and Services	26401-20	4
3	Load Calculations – Feeders and Services	26401-20	4
4	Health Care Facilities	26402-20	4
5	Health Care Facilities	26402-20	4
6	Health Care Facilities	26402-20	4
7	Standby and Emergency Systems	26403-20	4
8	Standby and Emergency Systems	26403-20	4
9	Standby and Emergency Systems	26403-20	4
10	Basic Electronic Theory	26404-20	4
11	Basic Electronic Theory	26404-20	4
12	Basic Electronic Theory	26404-20	4
<b>ELECTRICAL 4B</b>			
1	Fire Alarm Systems	26405-20	4
2	Fire Alarm Systems	26405-20	4
3	Fire Alarm Systems	26405-20	4
4	Specialty Transformers	26406-20	4
5	Specialty Transformers	26406-20	4
6	Specialty Transformers	26406-20	4
7	Advanced Controls	26407-20	4
8	Advanced Controls	26407-20	4
9	Advanced Controls	26407-20	4
10	HVAC Controls	26408-20	4
11	HVAC Controls	26408-20	4
12	HVAC Controls	26408-20	4
<b>ELECTRICAL 4C</b>			
1	Special Locations	26412-20	4
2	Special Locations	26412-20	4
3	Special Locations	26412-20	4
4	Heating Tracing and Freeze Protection	26409-20	4
5	Heating Tracing and Freeze Protection	26409-20	4
6	Heating Tracing and Freeze Protection	26409-20	4
7	Heating Tracing and Freeze Protection	26409-20	4
8	Motor Operation and Maintenance	26410-20	4
9	Motor Operation and Maintenance	26410-20	4
10	Motor Operation and Maintenance	26410-20	4
11	Fundamentals of Crew Leadership	46101-20	4
12	Fundamentals of Crew Leadership	46101-20	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 – Electrical Specialty Systems</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