



Industrial Electricity

The Industrial Electricity is a **NCCER** program that utilizes classroom instruction and lecture, individualized modules, and hands-on experience at job sites to provide the student with the knowledge to be a residential electrician, pre-journeyman, journeyman, electrical maintenance worker, or electrical technician. Graduates of the program will have a strong foundation in the basic principles of electricity, including motor generator principles; meters; testing equipment and instruments; blueprint reading and math; residential wiring; National Electric Code; industrial wiring/distribution; related electronics; and shop management and records.

Program/Location	Length	Days	Time
Day Program/Knoxville Campus	12 Months	Monday-Friday	8:00 am—2:30 pm
Night Program/Knoxville Campus	12 Months	Monday-Friday	3:30 pm—10:00 pm

Curriculum/Courses	Completion Award	Required Hours
INE 0001 Worker Characteristic	Electrician Helper	Certificate 432
INE 1010 Orientation and Safety	Electrician Apprentice Class II	Certificate 864
INE 1020 Basic Principles and Meters	Electrician Apprentice Class I	Diploma 1296
INE 1030 Basic Electronics		
INE 1040 National Electrical Code I		
INE 1050 Wiring		
INE 4050 Drawings and Documentation		
INE 0002 Worker Characteristic		
INE 2010 National Electrical Code II		
INE 2020 Motors and Transformers		
INE 2030 Motor Control and Timers I		
INE 0003 Worker Characteristic		
INE 3010 Motor Control and Timers II		
INE 3020 Installation Guidelines I		
INE 4030 NEC Commercial-Industrial		
INE 4040 Programmable Logic Controllers		

Total Placement Rate 2017 = 89%

HOW TO APPLY

All Documents Must be Presented Together to Apply

⇒ Complete the **Free Application For Federal Student Aid (FAFSA)** online – the website is www.fafsa.ed.gov and our school code is 004025.

⇒ Complete **TCAT Knoxville Application for Enrollment** online at <https://apply.tbr.edu/?tcat=knoxville>

Typical Job Opportunities

Electrical Companies
Manufacturers
Hospitals



Industrial Electricity

Book, Tool, and Supply List

1st Trimester				
Tuition		Cost	Total	
Tuition*		\$ 1,169.00		
Technology Access Fee*		\$ 67.00		
Student Activity Fee*		\$ 10.00		
OSHA 10 Training		\$ 25.00		
TOTAL				\$1,271.00
Books				
	ISBN	Cost	Required	
National Electrical Code (NEC 2014 Handbook)	9781455905447	\$ 186.00	x	
Electrical Level 1, 8th edition	9780133829594	\$ 90.00	x	
EZ Tabs for the 2014 National Electrical Code	9781285200361	\$ 18.00	x	
Electrical Systems Based on the 2014 NEC (w/CD)	9780826916419	\$ 102.00	x	
TOTAL				\$396.00
Supplies				
	Needed By	Cost	Required	
Denim or Khaki Pants	First day of class	\$ 35.00	x	
3 Dark Navy Short Sleeve Work Shirts	First day of class	\$ 75.00	x	
Composite Toe Work Boots	First day of class	\$ 140.00	x	
Hard Hat - Must have before able to do any live work projects	First day of class	\$ 12.00	x	
Safety Glasses - Must have before able to do any live work projec	First day of class	\$ 10.00	x	
Headphones	First day of class	\$ 5.00	x	
Non programmable Calculator (that converts decimal to fraction)	First day of class	\$ 20.00	x	
TOTAL				\$297.00
Tools				
	Needed By	Cost	Required	
<i>Special Student Pricing Available Through Klein Tools \$460, from Graybar in Knoxville, 1st Trimester kit #M2039749KIT</i>				
PowerLine 18-Pocket Electrician's Tool Pouch	First week of class	\$ 39.00	x	
PowerLine Web Works Belt	First week of class	\$ 11.00	x	
Tape Measure 25" (7.62 m) Magnetic Double Hook	First week of class	\$ 15.00	x	
3 Blade Pocket Knife - Carbon Steel Sheepfoot, Spearpoint, & Scro	First week of class	\$ 23.00	x	
Heavy-Duty Multi-Bit Screwdriver/Nut Driver	First week of class	\$ 12.00	x	
Conduit-Fitting and Reaming Screwdriver	First week of class	\$ 22.00	x	
Magnetic Screwdriver with 32 Piece Tamperproof Bit Set	First week of class	\$ 20.00	x	
Klein-Kurve® Wire Stripper/Cutter - Solid & Stranded Wire	First week of class	\$ 14.00	x	
8" (203 mm) High-Leverage Diagonal-Cutting Pliers - Angled Head	First week of class	\$ 19.00	x	
NM Cable Ripper - 8-14 AWG	First week of class	\$ 3.00	x	
9" (229 mm) High-Leverage Side-Cutting Pliers - Fish Tape Pulling	First week of class	\$ 25.00	x	
600A AC Clamp Meter with Temperature	First week of class	\$ 50.00	x	
#1 Square-Recess Tip Screwdriver 8" (203 mm) Round-Shank	First week of class	\$ 7.00	x	
#2 Square-Recess Tip Screwdriver 8" (203 mm) Round-Shank	First week of class	\$ 7.00	x	
8" (203 mm) Heavy-Duty Long-Nose Pliers - Side-Cutting	First week of class	\$ 20.00	x	
Straight-Claw Hammer - Heavy Duty	First week of class	\$ 22.00	x	
10" (254 mm) Pump Pliers	First week of class	\$ 16.00	x	
6-in-1 Tapping Tool	First week of class	\$ 18.00	x	
8" (203 mm) Adjustable Wrench Extra-Capacity	First week of class	\$ 19.00	x	
7-Piece Cushion-Grip Screwdriver Set	First week of class	\$ 41.00	x	
Rare Earth Magnet Torpedo Level	First week of class	\$ 18.00	x	
GFCI Receptacle Tester	First week of class	\$ 7.00	x	
High-Tension Hacksaw	First week of class	\$ 17.00	x	
TOTAL				\$460.00

All Costs are Estimated and Subject to Change Without Notice Revised: 8/28/2017

*Denotes costs that can be covered by TN Promise and TN Reconnect

2nd Trimester			
Tuition	Cost	Total	
Tuition*	\$ 1,169.00		
Technology Access Fee*	\$ 67.00		
Student Activity Fee*	\$ 10.00		
TOTAL			\$1,246.00

Books	ISBN	Cost	Required	
Understanding Motor Contols, 2nd edition	9781111135416	\$ 197.00	x	
Conduit Bending & Febrication (w/cd & quick reference)	9780826912671	\$ 94.00	x	
Electrical Trainee Guide level 2, 8th edition	9780133830651	\$ 130.00	x	
TOTAL				\$421.00

Tools	Needed By	Cost	Required	
<i>Special Student Pricing Available Through Klein Tools \$731, from Graybar in Knoxville, 1st Trimester kit #M2039750KIT</i>				
Tradesman Pro Organizer Hacksaw Electrician's Bag	First week of class	\$ 67.00	x	
Assembled Aluminum Conduit Bender with #51427 Handle - 1/2"	First week of class	\$ 25.00	x	
Assembled Aluminum Bender with #51427 Handle - 3/4" (19 mm)	First week of class	\$ 32.00	x	
16" (406 mm) Pump Pliers	First week of class	\$ 38.00	x	
Knockout Punch Set with Wrench	First week of class	\$ 242.00	x	
10 pc 6" (152 mm)SAE Journeyman T-Handle Set with Stand	First week of class	\$ 34.00	x	
8 pc 6" (152 mm) Metric Journeyman T-Handle Set with Stand	First week of class	\$ 27.00	x	
6" (152 mm) Adjustable Wrench Extra-Capacity	First week of class	\$ 18.00	x	
8" (203 mm) Adjustable Wrench Extra-Capacity	First week of class	\$ 20.00	x	
10" Adjustable Wrench Extra Capacity	First week of class	\$ 24.00	x	
8 pc Electrician's Hole Saw Kit	First week of class	\$ 52.00	x	
Electrician's Multimeter	First week of class	\$ 60.00	x	
Digital Circuit Breaker Finder	First week of class	\$ 32.00	x	
Circuit Breaker Finder Accessory Kit	First week of class	\$ 11.00	x	
1/8" (3 mm) Wide Steel Fish Tape - 125' (38 m)	First week of class	\$ 38.00	x	
TOTAL				\$731.00

3rd Trimester			
Tuition	Cost	Total	
Tuition*	\$ 1,169.00		
Technology Access Fee*	\$ 67.00		
Student Activity Fee*	\$ 10.00		
TOTAL			\$1,246.00

Books	ISBN	Cost	Required	
Electrical Level 3 Trainee Guide	9780133830828	\$ 130.00	x	
Electrical Trainee Guide Level 4 8th edition	9780133823158	\$ 130.00	x	
TOTAL				\$260.00

Miscellaneous Cost	Cost	Required	
Graduation Supplies	\$ 40.00	x	
TOTAL			\$40.00
TOTAL PROGRAM COST			\$6,368.00

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