Program Description: This hands-on industry concentrated program is designed to train individuals in the safe, proper and efficient installation, troubleshooting and service of electricity and its associated equipment and wiring. This program stresses all of the basic elements most often encountered by electricians in residential, commercial, and industrial settings including direct current applications, national code practice, and photovoltaic solar. The curriculum has been approved by the U.S. Department of Labor, Bureau of Apprenticeship and Training, for the 144 hours of classroom training required in an electrical apprenticeship program.

Program Outcomes:
Upon successful completion of this program, students should be able to:

- Demonstrate knowledge of OSHA guidelines for the electrical profession.
- Interpret the National Electrical Code (NEC) in practical applications.
- Perform calculations that are required of an electrician.
- Install conductors that are properly sized so as to avoid overload and voltage drop and assure proper system operation.
- Define and Install an electric services.
- Install power transformers in various voltage configurations.
- Lay out an electrical installation for residential and commercial uses.
- Utilize the various electrical meters and measuring devices used in the field.
- Install basic low-voltage and signal systems.
- Prepare electrical drawings as per NEC and standard wiring practices.
- Calculate Feeder loading, conductor size and required over-current protection.
- Install motors, motor controllers and generators.
- Trouble-shoot electrical systems and components.

Required Courses:
ELT 104
ELT 101
ELT 205
ELT 152
ELT 206
ELT 207
ELT 208
TCS 141

Total Credits: 29