

# RESIDENTIAL ELECTRICAL, CERTIFICATE OF COMPETENCY (ELT)

Effective: Spring 2017

This hands-on training program is designed to prepare individuals to become residential electricians who can work in new home construction as well as do maintenance and repairs in existing homes. Students learn safe, proper and efficient installation, troubleshooting and servicing of electricity and its associated equipment and wiring. 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

- Demonstrate knowledge of OSHA requirements for the electrical profession.
- Interpret and apply the National Electrical Code (NEC).
- Lay out electrical installations for residential uses.
- Install various electrical components, devices and circuits.
- Perform specified measurements and tests on current, voltage, resistance and efficiency of electrical motors, power panels, lighting circuits, electrical outlets, transformers, as well as electrical devices and circuits.
- Troubleshoot and electrical components, devices and circuits.

## Curriculum

The College will award a certificate of competency to students who complete an approved credit-bearing career program that requires less than 30 credits. General education courses may not be required for programs that have less than 30 credits. The student must have a cumulative GPA of 2.0 or higher. At least six credit hours must be in courses that are awarded grade points.

First Semester		Hours
TME 115	Basic Technical Skills	3
TCS 105	Workplace Safety	2
ELT 110	Introduction to Electricity	4
ELT 112	Electrical Code	2
ELT 114	Residential Wire	3
<b>Hours</b>		<b>14</b>
Second Semester		Hours
TCS 100	Construction Blueprint Reading	3
ELT 116	Advanced Electrical Wire	3
ELT 118	Troubleshooting and Old Work Wiring	2
ELT 206	Commercial Wire	3
ELT 208	Solar Photovoltaic System Design and Installation	3
<b>Hours</b>		<b>14</b>
<b>Total Hours</b>		<b>28</b>