



CRAFT TRAINING CENTER

of the Coastal Bend

Electrical Course Description

This course of instruction prepares individuals to work as an electrician helper. Students will study the following electrical components: Safety, Circuits, Theory, National Electrical Code, Device Boxes, Conduit Bending, Raceways & Fittings, Conductors & Cables, Electrical Drawings, Residential Services, and Test Equipment which includes voltage testers, clamp-on meters, ohmmeters, multi-meters, and other data recording equipment. Upon completion of this program students will be able to perform work which utilizes electrical concepts in a residential or commercial setting. The program is taught under the guidelines of the National Center for Construction Education and Research (NCCER). This is a post-secondary program which maintains student records through a National Registry that provides transcripts, certificates and wallet cards to individuals who successfully complete training modules of the NCCER Contren® Learning Series. Instructors are NCCER certified and are practicing electricians.

There are 4 levels of instruction in the electrical field, up to two levels may be taken at the high school level and then the last two courses are only offered as part of the ABC Electrical Apprenticeship Program. (See Electrical Apprenticeship Requirements at the Craft Training Center of the Coastal Bend (CTCCB) website.) We encourage all high students who take courses in the electrical field to pursue a course of study in the electrical apprenticeship program.

Electrical students should be able to:

- Assemble, install, test and maintain electrical or electronic wiring, equipment, appliances, and fixtures.
- Connect wires to circuit breakers, transformers and other components.
- Inspect electrical systems, equipment and components to identify hazards, defects and the need for repair.
- Test electrical systems and continuity of circuits in wiring, equipment and fixtures.
- Diagnose malfunctioning systems using test equipment and hand tools to locate the issues in order to fix the problem.
- Use a variety of tools and equipment such as construction equipment, measuring devices, power tools and testing equipment.
- Install ground leads and connect power cables to equipment, such as motors.
- Repair or replace wiring, equipment and fixtures using hand tools and power tools.