

# AIR CONDITIONING, HEATING, REFRIGERATION, AND ELECTRICAL TECHNOLOGY

(CIP 47.0201)

## Level I Certificates

The Air Conditioning, Heating, Refrigeration, and Electrical Technology program, open to male and female applicants, is comprised of two level one certificates. Both are offered at the Wharton Campus. The Entry Level Residential Air Conditioning & Electrical Certificate is a one-semester certificate offered each fall semester. The Apprentice Level Air Conditioning, Heating, Refrigeration & Electrical Certificate is a two-semester certificate offered each spring/summer. Students may pursue either or both certificates. With the completion of both certificates, the graduate will have acquired the knowledge and skills in the practical application of air-conditioning, heating, refrigeration, residential wiring, and commercial wiring. The program of study includes, but is not limited to, methods of installing, maintaining, diagnosing, and repairing equipment. Computer simulation programs are used to improve diagnostic skills. Specific competencies taught include: gas brazing and soldering, electrical circuits and motor analysis, system troubleshooting, conduit bending, wire size estimating, and circuit installations.

### ENTRANCE REQUIREMENTS

- Must apply and meet all admission requirements to WCJC.
- College entrance testing (TSI) is NOT required for entrance into the program.

### PROGRAM SUPPLIES

- Books
- Students will be required to purchase a tool kit for use in the program. Information for purchasing will be issued to the student when classes begin.
- Students will be required to wear a uniform shirt to all class meetings. Information for purchasing will be issued to the student when classes begin.

### Entry Level Residential Air Conditioning & Electrical

Level I Certificate

#### Semester I

ELPT 1321	Introduction to Electrical Safety and Tools
ELPT 1325	National Electrical Code I
ELPT 1329	Residential Wiring
HART 1301	Basic Electricity for HVAC (Capstone Course)
HART 1307	Refrigeration Principles
HART 1356	EPA Recovery Certification Preparation

**Total Semester Hours – 18**

### Apprentice Level Air Conditioning Heating, Refrigeration, & Electrical

Level I Certificate

#### Semester I

ELPT 1345	Commercial Wiring
ELPT 1357	Industrial Wiring
ELPT 2305	Motors and Transformers
HART 1345	Gas and Electric Heating
HART 2336	Air Conditioning Troubleshooting
HART 2349	Heat Pumps

#### Semester II

ELPT 2325	National Electrical Code II
HART 2441	Commercial Air Conditioning (Capstone Course)
HART 2442	Commercial Refrigeration

**Total Semester Hours – 29**