

EXPECTED GRADUATE COMPETENCIES (STUDENT LEARNING OUTCOMES)

HEATING VENTILATION AIR CONDITIONING AND REFRIGERATION OUTCOME MEASURES

As a graduate of East Central College's Associate Degree in Heating, Ventilation, Air Conditioning and Refrigeration, HVACR program, will have demonstrated success in the following areas: 1). Attainment of required industry certifications, 2). Field service knowledge and application of mechanical and electrical aptitude, and 3). Be able to demonstrate professionalism and customer service required of a trained technician. As a technician this will be demonstrated as follows:

Goal #: 1 Attainment of required industry certifications

A. Required Industry Certifications.

1. Obtain minimum required EPA 608 certification required to work on equipment containing refrigerants that are regulated by the Environment Protection Agency that contribute to ozone depletion and greenhouse gasses emissions.

Goal #: 2 Field service knowledge and application of mechanical and electrical aptitude

B. Mechanical/Electrical Aptitude.

1. Demonstrate the basic understanding of the refrigeration cycle and the state of the refrigerant throughout the cycle.
2. Identify and explain the mechanical components used in air conditioning and refrigeration equipment.
3. Understand code requirements and OSHA regulation for installation of equipment's mechanical, electrical, and air ducting for servicing and installing of equipment.
4. Basic understanding of electrical diagrams from design to build through practice.
5. Identify and explain electrical components used in air conditioning and refrigeration equipment.
6. Trouble shoot electrical systems to determine root cause of failure.
7. Demonstrate wiring methods on mechanical systems.
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Goal #: 3 Be able to demonstrate professionalism and customer service required of a trained technician.

C. Professionalism.

1. Work in a team environment.
2. Show the ability to communicate effectively to customers and team members.

3. Demonstrate proper writing technics when presenting work orders, quotes, and other written communications.
4. Show the ability to be on time to the work site.
5. Present oneself in proper uniform.
6. Maintain the ability to be flexible to constant changes throughout a typical workday.