

Adult & Community Education, Columbus City Schools
HVACR
Work-Based Activities/Instructional Plan
Council on Occupational Education, Standard 2

Objective

To provide and utilize a work-based activities/instructional plan for students' work-based activities that are required for program completion

Purpose

This plan will help ensure that Adult & Community Education (ACE), Columbus City Schools identifies responsible person(s) to implement a work-based activities/instructional plan at all sites required for program completion.

Council on Occupational Education Standard

This plan helps meet criteria for COE Standard 2, Area E, Objective 2-e.

Implementation of HVACR Work-based Activities/Instructional Plan

The HVACR Coordinator and instructors are responsible for implementation of the HVACR Work-based Activities/Instructional Plan.

Work-based Activities

Work-based activities include the use of hands-on HVACR lab equipment and virtual reality technology (VRT) in the classroom, which allows students to learn by doing, thus enhancing student learning and engagement through interaction in a virtual world. Learning through VRT replicates the internship experience.

Strategies Used to Facilitate the HVACR Work-based Activities/Instructional Plan

Written instructional plans are designated for each HVACR course, utilizing both a lecture format and hand-on experiences through the use of classroom lab equipment and VRT.

HVACR Work-Based Activities Instructional Plan

Objectives: The student's learning experiences are based on classroom lab objectives/outcomes of the course in which the student is enrolled. These objectives are specified in each course syllabi.

Hands-on Experiences: Hands-on and VRT experiences will be planned by the instructors to meet course objectives/outcomes, which are provided to HVACR students in course syllabi. Students will have the opportunity to practice technical skills based on content presented in classroom lectures.

Competencies: Students will demonstrate their knowledge and skills via hands-on learning in the HVACR classroom lab as well as through VRT. Students must successfully demonstrate competency through hands-on learning in the classroom lab within the timeframe established by the course instructor in order to successfully pass the course.

Evaluations: Evaluations for work-based activities and hands-on learning experiences will indicate a (S) for Satisfactory or a (U) for Unsatisfactory progress based on the stated objectives in the course syllabi.

HVACR Instructors' Responsibilities: Instructors of the HVACR program are responsible for planning and implementing hands-on learning activities in the classroom lab and VRT experiences and for evaluating the student's performance. All classroom lab and VRT experiences shall be performed under the direction and guidance of an HVACR instructor.

HVACR Instructor Qualifications:

Instructors in the HVACR program must possess the following qualifications:

1. A valid Ohio Adult Education permit;
2. Familiarity with NCCER or ESCO HVACR curriculum;
3. EPA (608) universal certification;
4. Five years of teaching experience (adult education/work place mentoring);
5. Five years of HVAC trade experience (commercial);
6. Strong knowledge of and proficiency in the functions of heating, electrical, air conditioning, and systems diagnostics and troubleshooting;
7. Good communication and networking skills (including relationships with industry companies and professionals);
8. Proficiency in Microsoft Office suite;
9. Proven background in classroom management principles relating to adult learners;
10. Strong understanding of local building codes and ability to read and interpret construction drawings relating to the HVAC field;
11. Ability to acquire and apply concepts, principles and methodologies of learning theory and teaching; communicate effectively, both orally, in writing and through electronic means, using appropriate language and grammar skills; develop instructional goals; design lessons, deliver instruction, and assess students' learning; develop work plans for students and monitor and evaluate them; provide work direction to others; and to serve as an effective liaison and effectively collaborate with others; and
12. Demonstrated skills in decision-making, problem analysis, conflict resolution, interpersonal relationships and planning.

Annual Plan Evaluation

The HVACR Work-based Activities/Instructional Plan will be reviewed no less than annually by the HVACR Program Coordinator and instructors and revised as necessary.