

Course Title: INT-107 Introduction to Heating, Ventilation, Air Conditioning and Refrigeration

Course Instructor(s): Dennis Faulk

Programs: Industrial Technology, Alternative Energy Technology

Expected Learning Outcomes

- Understand refrigeration theory.
- Understand EPA regulations and refrigerant recovery process.
- Understand HVAC/R system components and how they work.
- Understand evacuation, leak testing, and charging procedures.
- Understand SEER and COP energy ratings

Assessment

Assessments will include:

2 written tests and a final written exam

Classroom lab exercises and assignments

Validation

1. Comparison of final exam results with national average skills in the HVAC and energy field of work.
2. The evaluation of student performance and ability to transfer knowledge to next level of class in the program.
3. Consult Advisory Committee participants as to performance of interns and hired students based on ability and knowledge gained.

Results

The results of the testing and final examination will show the level of retention of the classroom materials.

The results of the practice exercises and assignments will show the ability of the student to transfer textbook information to hands-on applications.

Course Outcomes INT-107 Intro to HVAC/R

The results of the Advisory Committee input will allow us to place a rate of success in our database for ongoing improvement to the course and advise us of changes in technology and industry standards.

Internships will measure the student outcomes in a real world environment through feedback from internship supervisor.

The average grade for students during the spring 2016 semester was 82%. The students continue to bring a good fundamental knowledge of HVAC into the next level class AET 104 geothermal installation and service. A pretest continues to be issued in the geothermal class to validate the core knowledge gained in this course.

Follow-up

The data will be evaluated to improve teaching techniques
The data will be evaluated to help us remain up to date with technology changes.

The results show no need to make any adjustments at this time.

Budget Justification

Update textbook to include changes in technology
Update classroom equipment to keep pace with changes in technology

We are still planning to move HVAC to the new Energy House Training Facility when the facility becomes available to enhance the space to accommodate commercial applications.

There are no additional budget request or textbook upgrades required at this time.