

# HVA 101 - INTRODUCTION TO HVAC/R

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## Course Description

This course covers safety concerns associated with the HVAC field, identification and use of trade tools and basic blueprint reading. Students are introduced to different types of pipe and tubing used for equipment and will learn threading and soldering techniques. A strong emphasis is placed on electrical theory and application as well as learning how to read electrical diagrams. Group 2 course.

## Credit Hours

3

## Contact Hours

4

## Lecture Hours

2

## Lab Hours

2

## Recommended Prerequisites or Skills Competencies

Placement into ENG 111 and MTH 111, both may be taken concurrently.

## Course Learning Outcomes

### Knowledge:

- Identify how to use trade specific tools.
- Explain basic conversion of electrical measurements and values.
- Identify the correct type of pipe or tubing needed for each individual application they work with.

### Application:

- Demonstrate the ability to correctly measure and thread black iron pipe.
- Differentiate between the ways to measure electrical energy and how to perform each function correctly.
- Identify symbols and location of equipment on a blueprint.

### Integration:

- Compare basic skills in this course to the work requirements in the industry.
- Breakdown concepts of reading electrical diagrams to troubleshoot and repair a faulty system.

### Human Dimension:

- Collaborate with others in class to develop teamwork concepts.

### Caring - Civic Learning:

- Recognize the need for basic safety and electrical knowledge in their trade.

### Learning How to Learn:

- Apply information learned in class to real-life equipment.