



South Central College

HVAC 2400 Advanced Central Air Conditioning I

Course Outcome Summary

Course Information

Description	This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer instillation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. The student should take HVAC 2240 before or concurrently to be successful in this course.
Total Credits	1
Total Hours	32

Types of Instruction

Instruction Type	Credits/Hours
Lab	

Pre/Corequisites

See Course Description.

Institutional Core Competencies

Communication - Students will be able to demonstrate appropriate and effective interactions with others to achieve their personal, academic, and professional objectives.

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Competencies

1. Demonstrate safety techniques.

Learning Objectives

- Identify Safety practices found in an instillation manual.
- Identify refrigerant hazards.
- Discuss electrical safety.
- Assist other students in proper safety techniques.
- Identify safety techniques for handling higher pressure refrigerants

2. Interpret system problems by using troubleshooting techniques.

Learning Objectives

Review a manual's flow chart.
Interpret temperature and pressure measurements.
Observe the sequence of operation.
State the system problem.

3. Analyze superheat and subcooling

Learning Objectives

Perform superheat calculations.
Perform subcooling calculations.
Adjust system charge.
Check system performance.

4. Produce a project summarizing an installation manual.

Learning Objectives

Compare an actual installation and a manufacturer's installation guide.
Describe some possible problems with the field installation.
Recognize the safety issues with the field installed equipment.

5. Evaluate the need for good communication.

Learning Objectives

Recognize the importance of good customer communication.
Demonstrate teamwork in the lab.
Assist fellow students.

6. Exercise the ability to be self-motivated.

Learning Objectives

Assume personal responsibility for staying on task.
Identify work responsibilities.
Complete projects in a timely manner.

SCC Accessibility Statement

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: www.southcentral.edu/disability

This material can be made available in alternative formats by contacting the Academic Support Center at 507-389-7222.