



South Central College

HVAC 2440 Advance Refrigeration Lab I

Course Outcome Summary

Course Information

Description	This course cover all aspects of today s refrigeration systems. This course is designed for students who want more hands-on training. The students will repair, replace and troubleshoot different types of refrigeration systems. EPA regulations will be followed. To be successful in this course, you must be knowledgeable in the following areas; electrical circuits, refrigeration theory, controls, and sealed systems.
Total Credits	1
Total Hours	32

Types of Instruction

Instruction Type	Credits/Hours
Lab	

Pre/Corequisites

None

Institutional Core Competencies

Civic Engagement and Social Responsibility - Students will be able to demonstrate the ability to engage in the social responsibilities expected of a community member.

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. Prepare customer work orders

Learning Objectives

Complete all information on the customer's work order
Demonstrate good hand writing skills

2. Handle customer complaints professionally

Learning Objectives

Listen to the customer
Discuss with the customer what you plan to do to solve the problem
Explain to the customer what you did and why
Ask them what can we do to fix this problem

3. Manage the parts-room supplies and order replacement supplies when needed

Learning Objectives

Estimate the cost of repairs and call the customer
Assist in the process of ordering parts
Adjust pricing and inventory all incoming parts

4. Diagnose electrical system failures

Learning Objectives

Locate and use the wiring schematic to troubleshoot the customer's unit
Demonstrate the proper usage of test equipment
Describe on the work order what they found and what they did to fix the problem
Repair the electrical failure in a timely manner

5. Diagnose refrigeration sealed system failures

Learning Objectives

Follow EPA regulations when handling refrigerants
Demonstrate proper safety by wearing all necessary safety equipment while working with refrigerants
Repair sealed system failures in a timely manner
Review what caused the system failure and take corrective measures to ensure it doesn't happen again

6. Ensure that the lab is clean and the equipment is in good working order

Learning Objectives

Clean job site and surrounding area after each job
Test or repair equipment before you use it
Replace equipment that is unsafe

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.