



South Central College

## HVAC 2230 Commercial Alternative Systems

### Course Outcome Summary

#### Course Information

<b>Description</b>	This course will take a look at commercial refrigeration systems found in the Mankato area, along with the companies that service them. The class will take field trips to local businesses and service companies to see how they operate. To be successful in this course, you should have a understanding of the refrigeration sealed system components and how they work.
<b>Total Credits</b>	1
<b>Total Hours</b>	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.

Cultural Competence - Students will be able to demonstrate an attitude of personal curiosity, a rising knowledge of cultures, and an evolving range of skills for living and working among others with other worldviews and ways of life.

#### Course Competencies

##### 1. Examine different types of refrigeration systems.

###### Learning Objectives

Review units 25, 26, 28 and 29

Answer the questions from unit 25, 26, & 28.

Review service calls 1 through 22, unit 29, troubleshoot service calls 23 through 29.

**2. Analyze temperatures for long term storage facilities.**

**Learning Objectives**

Describe the temperatures associated with long term storage.

Associate refrigerants with low temperature applications.

Identify refrigerant being used for long term storage.

**3. Explore different refrigeration systems throughout the Mankato area.**

**Learning Objectives**

Complete worksheets on designed field trip tours.

Address safety requirements in the workplace.

Demonstrate proper safety while on the field trips.

Identify different brands of compressors and styles of condensers.

**4. Analyze defrost methods**

**Learning Objectives**

List types of defrosting methods found during the field trips.

Express why you might use hot gas defrost over electric defrost.

**5. Analyze the installation and maintenance requirements.**

**Learning Objectives**

Compare refrigeration systems installation of different field trips.

Describe the maintenance procedures for each field trip.

Compare indirect to direct systems.

**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](http://www.southcentral.edu/disability)

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