DEPT. HVAC COURSE NO. 1135

NUMBER OF CREDITS: 4

COURSE TITLE: Commercial Refrigeration

CATALOG DESCRIPTION: This Course covers the different types of systems, their controls and uses. Topics include installation, proper sizing, and troubleshooting techniques.

AUDIENCE: Persons that would like to become a certified technician in the HVAC/R fields.

FULFILLS MN TRANSFER CURRICULUM AREA(S) *(Leave blank if not applicable)*

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE: Domestic Refrigeration

LENGTH OF COURSE 1 semester

THIS COURSE IS USUALLY OFFERED:
Every other year fall X spring summer undetermined

Four goals are emphasized in course at Minnesota West Community & Technical College:

1) ACADEMIC CONTENT: Math, Reading

2) THINKING SKILLS: Problem solving.

3) COMMUNICATIONS SKILLS: Must communicated well with others and communicate problems well that will arise in the field.

4) HUMAN DIVERSITY:

TOPICS TO BE COVERED: This course will cover commercial refrigeration in its entirety. From the wiring, controls, refrigeration cycle, pressures, design, and troubleshooting.
LIST OF EXPECTED COURSE OUTCOMES:
1. The student will list commercial refrigeration components and design a system.
2. The student will identify refrigeration problems in both electrical and refrigeration areas.
3. The student will match compressor failures / ways to detect them
4. The student will use proper tools and techniques for troubleshooting
5. The student will define schematics (ladder, and pictorial)
6. The student will identify schematic components

LEARNING/TEACHING TECHNIQUES used in the course are:
X Collaborative Learning   X Problem Solving
   Student Presentations    X Interactive Lectures
X Creative Projects        Individual Coaching
X Lecture                  X Films/Videos/Slides
X Demonstrations           Other (describe below)
X Lab

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
X Reading                   X Tests                  X Individual Projects
   Oral Presentations          X Worksheets              Collaborative Projects
X Textbook Problems         X Papers                 Portfolio
X Group Problems            Term Paper
   Other (describe below)

EXPECTED STUDENT LEARNING OUTCOMES: The student at the end of the semester will be able to troubleshoot all parts of a commercial system. Starting with the electrical controls. The student will also be able to wire a commercial system up and draw a diagram for the system. Student will be able to design a system and put it all together to operate to its standards of the manufacture.

"This course will cover the characteristics of hazardous wastes and its safe handling, storage, and disposal."

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or Minnesota Relay Service at 800-627-3529 or by using your preferred relay service.

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The information in this course outline is subject to revision.