Faculty are required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the Collegewide Curriculum Committee.

DEPT. HVAC COURSE NO. 1130

NUMBER OF CREDITS: 3

COURSE TITLE: Air Conditioning

CATALOG DESCRIPTION: This Course covers the basic concepts of conditioning air. Topics include installation, testing air conditions, electrical, and mechanical troubleshooting.

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)

Area : by meeting the following competencies:
Area : by meeting the following competencies:
Area : by meeting the following competencies:

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE: Refrigeration Fundamentals

LENGTH OF COURSE 1 semester

THIS COURSE IS USUALLY OFFERED:
Every other year fall spring X 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 air conditioning form window air conditioners up to roof top air conditioners. Troubleshooting techniques and load estimating of a cooling system.
LIST OF EXPECTED COURSE OUTCOMES:
1. The student will identify condensing section component problems/ causes
2. The student will identify indoor section component problems/ causes
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 a system for electrical problems to component level problems. Will be able to identify indoor and outdoor air conditioning problems.

"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.

A Member of the Minnesota State Colleges and Universities System
An Affirmative Action Equal Opportunity Educator/Employer

The information in this course outline is subject to revision.