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. 1155

NUMBER OF CREDITS: 3

COURSE TITLE: Sheet Metal Technology

CATALOG DESCRIPTION: Experience will be gained in the sheet metal tools and their proper uses. Measuring and layout pattern matching, making edges and seaming from the text handouts. Experience will be gained in sizing, measuring pressures, and calculating losses. Proper measuring with flow meters, and various manometers will enhance the material learned.

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:
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PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE: None

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: To learn the use of tools of the trade, measure, layout patterns, match and make useable ductwork. Sizing, calculating pressures, and gauge use will improve the understanding of proper duct sizing.

LIST OF EXPECTED COURSE OUTCOMES:
1. The student will design a ductwork for a heating system using a house plan.
2. The student will determine the codes that are needed for proper installation.
3. The student will demonstrate all types of seams and edging.
4. The student will use proper tools and techniques for building the ductwork.
5. The student will explain heating / air conditioning / ventilation methods.
6. The student will measure duct velocities, pressures, and duct losses in air flow.

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 design and install a ductwork system and make proper adjustments to the system to achieve proper air flow to all parts of the ducting system.

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.