MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

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. Plumbing COURSE NO. PLMB 1135

COURSE TITLE Sewage Disposal Systems and Survey

CATALOG DESCRIPTION The student will learn the requirements for sewage disposal units.

AUDIENCE Plumbing students who want to increase their knowledge of sewage disposal systems and surveys.

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 lecture hour and 2 lab hours per week for 16 weeks

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: This course focuses on the technical terms, methods, tests, inspections and installations of the onsite sewage disposal system.

2) THINKING SKILLS: The student will accurately perform projects related to installing the sewage system.

3) COMMUNICATIONS SKILLS: The student will begin to demonstrate appropriate communication with other onsite septic installers.

4) HUMAN DIVERSITY: The student will gain self-awareness regarding their feelings towards people of different cultures, value systems and socioeconomic status.
TOPICS TO BE COVERED: The students will gain knowledge of the methods, forms, and calculate data from actual excavations.

LIST OF EXPECTED COURSE OUTCOMES:

1. complete backhoe training course
2. draw iso layout
3. bore percolation test hole
4. design system layout
5. describe requirements for the system layout
6. operate skidsteer bucketloader
7. complete survey elevation course
8. explain care, use, and maintenance safety for backhoe
9. calculate variations from sea level elevations
10. calculate tank excavations
11. calculate sewer disposal system size
12. calculate septic tank size
13. calculate filter material
14. calculate elevations
15. calculate drain field excavations
16. compute system total cost
17. explain septic tank maintenance requirements
18. operate backhoe
19. meet criteria for industry proficiency
20. install perk test requirements
21. explain topography and elevations
22. determine quantities
23. explain septic tank types
24. explain alternate system
25. explain septic tank site plan
26. explain perk test
27. explain MPC codes and regulations
28. explain lake shore requirements
29. explain gray water
30. explain effluent
31. explain care and use of survey equipment
32. explain system failure

LEARNING/TEACHING TECHNIQUES used in the course are:

- Collaborative Learning
- Problem Solving
- Student Presentations
- Interactive Lectures
- Creative Projects
- Individual Coaching
- Lecture
- Films/Videos/Slides
- Lab
ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:

X    Reading
X    Tests
X    Individual Projects

☐ Oral Presentations
☐ Worksheets
☐ Collaborative Projects

X Textbook Problems
☐ Papers
☐ Portfolio

☐ Group Problems
☐ Term Paper

☐ Other (describe below)

EXPECTED STUDENT LEARNING OUTCOMES: see above

The information in this course outline is subject to revision

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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