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 Academic Affairs and Standards Council.

DEPT. Diesel COURSE NUMBER: DSL1120

NUMBER OF CREDITS: 2 cr

COURSE TITLE: Powertrain Principles

CATALOG DESCRIPTION: Covers theory of clutch, pressure plate assembly, standard transmissions, differentials, power take-off, brakes, axles, and components that compliment powertrain operations.

AUDIENCE: First Year Diesel Students

FULFILLS MN TRANSFER CURRICULUM AREA(S) (Leave blank if not applicable)
Area: ___ by meeting the following competencies:
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Area: ___ by meeting the following competencies:

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE:

LENGTH OF COURSE:

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: The academic objectives of this course are:
   a. To learn about basic manual transmission
   b. To learn about clutches and how they work
   c. To gain an understanding of how all of the drive train works together.
2) THINKING SKILLS: This course will help students improve the effectiveness of their thinking skills through: Home work assignments and projects.
   a. The students will have to look up information on the units that they are working onto find what needs to be fixed.
   b. The students will have to study their book for assignments to turn in on time
   c. The students will need to study power flow in their power train that they are assigned.

3) COMMUNICATIONS SKILLS: This course will help students improve their oral and written communication skills through:
   A. Particapation in class discussion.
   B. Complete written reports and assignments
   C. To improve oral communications skills through class presentations.

4) HUMAN DIVERSITY: This course will help students recognize, understand, and appreciate human diversity through:
   A. To understand the roles of the technician in communicating with a diverse population
   B. To work effectively in teams comprised of diverse backgrounds
   C. To express personal philosophies on diverse issues.

TOPICS TO BE COVERED: Powertrain fundamentals, service, and repair.

LIST OF EXPECTED COURSE OUTCOMES: The student will receive a passing grade when they have completed their project to the instructor’s satisfaction.

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

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
X Reading  X Tests  ☐ Individual Projects
☐ Oral Presentations  ☐ Worksheets  ☐ Collaborative Projects
X Textbook Problems  X Papers  ☐ Portfolio
EXPECTED STUDENT LEARNING OUTCOMES:

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

The information in this course outline is subject to revision

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.

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.

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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