DEPT.  Diesel                          COURSE NO.  DSL2150

COURSE TITLE  Advanced Engine Lab

This course reviews Lab situations take the students through all facets of repair. In the laboratory, the student will practice reconditioning of the larger and more advanced engines, with overhead cams and multiple valve cylinders, and other components like jakebreaks, unit type injectors, and all the ways of adjusting of these engines. This course allows the student hands-on shop experiences. The student will disassemble, inspect, evaluate, repair and adjust, and reassemble valve, valve train components, cylinder blocks, crankshafts, bearings, sleeves, pistons, rings, and other components that compliment the above.

AUDIENCE  2nd year Diesel Students

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:

LENGTH OF COURSE 5cr

THIS COURSE IS USUALLY OFFERED:
Every year X      Every other year □
Fall □      Spring X      Summer □      Undetermined □

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

1. ACADEMIC CONTENT:
   A. To build a valve cycle and chart of the engine and disassemble and rebuild the engine from that cycle and chart.
   B. To gain an understanding of the larger engines and how to go about troubleshooting and repairing.
   C. To learn how one system differs from the other.
THINKING SKILLS:
A. To troubleshoot the effect on performance of the engine dependent on operation.
B. To troubleshoot the repair necessary to get the proper operation of the engine.
C. To troubleshoot and learn the right ways of rebuild.

COMMUNICATIONS SKILLS:
A. Participation in class discussion.
B. Complete written reports and assignments
C. To improve oral communications skills through class presentations.

HUMAN DIVERSITY:
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: The rebuild of a large diesel engine by use of a student's made valve cycle and chart.

LIST OF EXPECTED COURSE OUTCOMES:
LEARNING/TEACHING TECHNIQUES used in the course are:
- Collaborative Learning
- Student Presentations
- Creative Projects
- Lecture
- Demonstrations
- Lab

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
- Reading
- Oral Presentations
- Textbook Problems
- Group Problems
- Other (describe below)

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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