

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. DSL

COURSE NUMBER: 2150

NUMBER OF CREDITS: 5

Lecture: 0 Lab: 5 OJT 0

Course Title:

Advanced Engine Lab

Catalog Description:

Advanced Engine Lab provides hands-on shop experiences. Students will practice reconditioning of the larger and electronically controlled engines.

Prerequisites or Necessary Entry Skills/Knowledge:

DSL1100 and DSL1110

FULFILLS MN TRANSFER CURRICULUM AREA(S)

- Goal 1: Communication: By meeting the following competencies:
- Goal 2: Critical Thinking: By meeting the following competencies:
- Goal 3: Natural Sciences: By meeting the following competencies:
- Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
- Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
- Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
- Goal 7: Human Diversity: By meeting the following competencies:
- Goal 8: Global Perspective: By meeting the following competencies:
- Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
- Goal 10: People and the Environment: By meeting the following competencies:

Topics to be Covered

Valve cycles

Large and Advanced Diesel Engine Repair

Large Diesel Engine Rebuild

Overhead Cams

Engine braking systems

Injectors

Student Learning Outcomes

Build a valve cycle

Disassemble and rebuild engine using the student-built cycle

Diagnose and repair larger engines with overhead cams and multiple valve cylinders

Diagnose and repair components such as engine braking systems and unit type injectors

Disassemble, inspect, evaluate, repair and adjust, and reassemble valve, valve train components, cylinder blocks, crankshafts, bearings, sleeves, pistons, and rings

Is this course part of a transfer pathway: Yes No

Revised Date: 8/2021