

# MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

## COURSE OUTLINE

DEPT. DSL

COURSE NUMBER: 2137

NUMBER OF CREDITS: 5

Lecture: 0 Lab: 5 OJT 0

### Course Title:

Fuel Systems Lab

### Catalog Description:

Fuel Systems Lab applies theory in the laboratory environment. Students will disassemble, inspect, evaluate, reassemble and calibrate a mechanical pump.

### Prerequisites or Necessary Entry Skills/Knowledge:

DSL 1135

### 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

Distributor and inline mechanical fuel systems

Combination mechanical and electronic injection systems

Diagnosis, service and repair of fuel systems

### Student Learning Outcomes

Determine different types of fuel delivery systems

Determine the effects of fuel grades on engine performance

Experiment with different types of governor systems

Inspect and analyze engine and fuel systems to determine methods to enhance performance

Differentiate distributor and inline pumps

Demonstrate how the governor and fuel system operate together

Diagnose and repair fuel system issues in diesel engines

Is this course part of a transfer pathway: Yes  No

Revised Date: 8/2021