

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. DSL

COURSE NUMBER: 2136

NUMBER OF CREDITS: 5

Lecture: 5 Lab: 0 OJT 0

Course Title:
Fuel Systems Theory

Catalog Description:
Fuel Systems Theory studies the theory of all mechanical fuel systems and introduces electronically controlled engines and fuel systems.

Prerequisites or Necessary Entry Skills/Knowledge:
DSL1135

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
Describe fuel control systems
Explain distributor and inline type pumps
Describe the process of the delivery of fuel from the injection system to the engine
Inspect engine and fuel systems to determine best methods of repair for maximum performance
Correlate fuel system operation and engine performance
Correlate governor controls and fuel system operation
Identify the differences in all fuel injected systems
Explain the evolution from the mechanical to present day high-pressure common rail

Is this course part of a transfer pathway: Yes ☐ No ☒

Revised Date: 8/2021