MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

DEPT. DSL   **COURSE NUMBER: 2145**

NUMBER OF CREDITS: 4   **Lecture: 4 Lab: 0 OJT 0**

Course Title:
Advanced Diesel

Catalog Description:
Advanced Diesel reviews the theory and operation of specialty areas of diesel engine rebuilding. This course explains different tier levels for emission-controlled engines.

Prerequisites or Necessary Entry Skills/Knowledge:
DSL 1100 and DSL 1110

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
Diesel Engine Systems
Timing the fuel system to the diesel engine
Emission control system operation

Student Learning Outcomes
Analyze and interpret customer concerns
Differentiate various diesel engine systems
Explain the process of rebuilding a diesel engine
Diagnose and explain repairs needed on diesel engine systems
Determine correct timing to ensure maximum engine performance
Describe the effect on performance of the engine dependent on operation
Explain engine machining processes
Describe the evolution from the mechanical to current electronically controlled engines

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

Revised Date: 8/2021