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