**DEPT. DSL**

**NUMBER OF CREDITS: 3**  
Lecture: 3 Lab: 0 OJT 0

<table>
<thead>
<tr>
<th>Course Title:</th>
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<tr>
<td>Diesel Engine Theory</td>
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<th>Catalog Description:</th>
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<tr>
<td>Diesel Engine Theory explains the function of the diesel combustion, chamber designs, valve train operation, rings, cylinders, pistons, crankshafts, connecting rods, and components that compliment basic engine theory.</td>
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<tr>
<th>Prerequisites or Necessary Entry Skills/Knowledge:</th>
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<td>None</td>
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**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 combustion
- Diesel engine components
- Diesel engine operation

**Student Learning Outcomes**

- Describe diesel combustion
- Identify chamber designs
- Explain how a valve train works
Discuss the function of rings, cylinders, pistons, crankshafts, connecting rods and other components that affect the function of the diesel engine.

Diagnose engine related issues
Identify tools necessary to measure component quality.

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

Revised Date: August, 2021