### Course Outline

#### DEPT. DSL

<table>
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<th>COURSE NUMBER: 1105</th>
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| NUMBER OF CREDITS: 4 |

**Course Title:** Diesel Engine Lab

**Catalog Description:**
Diesel Engine Lab provides the student hands-on shop experiences. The student will disassemble, inspect, evaluate, repair and adjust, and reassemble valve, valve train components, cylinder blocks, crank shafts, bearings, sleeves, pistons, rings, and other components to make engine operational.

**Prerequisites or Necessary Entry Skills/Knowledge:**
None

**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**
- Valve trains
- Cylinder blocks
- Crank shafts
- Bearings
- Sleeves
- Pistons
- Rings

**Student Learning Outcomes**
<table>
<thead>
<tr>
<th>Task</th>
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<tbody>
<tr>
<td>Disassemble valve, valve train components, cylinder blocks, crank shafts, bearings, sleeves, pistons, rings, and other components.</td>
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<tr>
<td>Inspect valve, valve train components, cylinder blocks, crank shafts, bearings, sleeves, pistons, rings, and other components.</td>
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<tr>
<td>Evaluate valve, valve train components, cylinder blocks, crank shafts, bearings, sleeves, pistons, rings, and other components.</td>
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<tr>
<td>Repair valve, valve train components, cylinder blocks, crank shafts, bearings, sleeves, pistons, rings, and other components.</td>
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<td>Adjust valve, valve train components, cylinder blocks, crank shafts, bearings, sleeves, pistons, rings, and other components.</td>
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<tr>
<td>Reassemble valve, valve train components, cylinder blocks, crank shafts, bearings, sleeves, pistons, rings, and other components.</td>
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<td>Test engine to ensure operability.</td>
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</tbody>
</table>

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

Revised Date: August, 2021