DEPT. DSL       COURSE NUMBER:  2111

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

Course Title:
Advanced Powertrain Lab

Catalog Description:
Advanced Powertrain Lab demonstrates disassembly, inspection, evaluation, repair, reassembly, and testing of various power shift transmissions and related components. The student will work in the lab environment to diagnose and repair these various electro hydraulic systems.

Prerequisites or Necessary Entry Skills/Knowledge:
DSL1120 or DSL1125

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
- Electro-hydraulically controlled transmissions
- Advanced drive trains
- Computer controlled powertrain systems
- Power and hydraulic flows

Student Learning Outcomes
- Diagnose and repair issues with power shift, shuttle transmissions, hydro/IVT and other new systems
- Demonstrate operation and repair of electrical hydraulics and test different systems
- Determine high-pressure and low-pressure standby
- Demonstrate operation and repair of computer controlling powertrain systems
Overhaul transmissions and drive train components
Rebuild transmissions and drive train components

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

Revised Date: 8/2021