MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

DEPT. AUTO **COURSE NUMBER: 2121**

NUMBER OF CREDITS: 5 **Lecture: 2 Lab: 3 OJT: 0**

Course Title:
Engine Performance II

Catalog Description:
Engine Performance II introduces the theory and repair of automotive engine systems including ignition systems, emission controls, electronic engine controls, and engine performance diagnosis. Students will be introduced to diagnosing and repairing all systems related to engine performance.

Prerequisites or Necessary Entry Skills/Knowledge:
TRAN 1100

FULFILLS MN TRANSFER CURRICULUM AREA(S) ***(Leave blank if not applicable)***

☐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
GM computer system fundamentals
Sensors, throttle body injection, port fuel injection
Scanners
OBD II
Diagnosing and repair of computer systems

Student Learning Outcomes
Test computer system performance.
Test oxygen ,BARO, TPS, MAP, VSS, ECT , IAT sensors
Test computer-controlled Driveability emissions.

Test air management component operation.
Access electronic information as applied to automotive systems
Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.
*The required outcomes follow the Auto Service Technician (AST) model of the Board of the National Institute for Automotive Service Excellence (ASE)

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

Revised Date: 04/2022