

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. AUTO

COURSE NUMBER: 2122

NUMBER OF CREDITS: 5

Lecture: 2 Lab: 3 OJT 0

Course Title:
Engine Performance III

Catalog Description:
Engine Performance III expands on the repair of automotive engine systems including ignition systems, emission controls, electronic engine controls, and engine performance diagnosis. Students will diagnose and repair all systems related to engine performance.

Prerequisites or Necessary Entry Skills/Knowledge:
AUTO 2121

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
Analysis of can systems
Analysis of fuel injections, direct injection systems
Drivability concerns
Diagnosis of engine mechanical systems

Student Learning Outcomes
Analyze vehicle emission systems
Analyze engine vacuum.

Perform cylinder balance test.
Perform compression /cylinder leakage test
Analyze no-start condition.
Analyze engine mechanical problems.
Diagnose drivability concerns as it related to repair of drivability problems.
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 National Automotive Technical Education Foundation (NATEF) certification program.

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

Revised Date: 8/2021