MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE
COURSE OUTLINE

Faculty are required to have the outline submitted to the Academic Affairs Office. The course outline is the form used for approval of new courses by the College-wide Curriculum Committee.

DEPT.:  Auto                           COURSE NO.:  AUTO 2122

COURSE TITLE:  Engine Performance III

CATALOG DESCRIPTION:  A8 Engine Performance III

This course will prepare students with the necessary skills to diagnose and repair all systems related to engine performance. It teaches the theory and repair of automotive engine systems. It includes ignition systems, emission controls, electronic engine controls, and engine performance diagnosis. 5 credits (2 lecture, 3 lab) 144 hours

AUDIENCE:  Second year Auto students

FULFILLS MN TRANSFER CURRICULUM AREA(S) (Leave blank if not applicable)
Area : by meeting the following competencies:
Area : by meeting the following competencies:
Area : by meeting the following competencies:

PREREQUISITES OR NECESSARY ENTRY SKILLS/KNOWLEDGE:  NA

LENGTH OF COURSE: 24 days @ 6 hours a day = 144 hours

THIS COURSE IS USUALLY OFFERED:
Every year  X   Every other year
Fall  X   Spring   Summer   Undetermined

Four goals are emphasized in course at Minnesota West Community & Technical College:

ACADEMIC CONTENT: Enables students to master the proper techniques necessary to diagnose, adjust, and repair the computer system, throttle body, port, and sequential fuel injection systems.

THINKING SKILLS:
A. To use different situations to diagnose & troubleshoot problems in computer system.
B. To be able to think through how all of the internal components of the computer system work

COMMUNICATIONS SKILLS:
A. Participation in class discussion.
B. Complete written reports and assignments
C. To improve oral communications skills through class presentations

HUMAN DIVERSITY:
A. To understand the roles of the technician in communicating with a diverse population.
B. To work effectively in teams comprised of diverse backgrounds.
C. To express personal philosophies on diverse issues.

TOPICS TO BE COVERED:
GM computer system fundamentals
Sensors, throttle body injection, port fuel injection
Scanners
OBD II
Diagnosing and repair of computer systems

LIST OF EXPECTED COURSE OUTCOMES:
LEARNING/TEACHING TECHNIQUES used in the course are:
X Collaborative Learning X Problem Solving
Student Presentations Interactive Lectures
Creative Projects Individual Coaching
X Lecture X Films/Videos/Slides
X Demonstrations
X Lab

ASSIGNMENTS AND ASSESSMENTS FOR THIS CLASS INCLUDE:
X Reading X Tests X Individual Projects
Oral Presentations X Worksheets Collaborative Projects
X Textbook Problems Papers Portfolio
Group Problems Term Paper
Other (describe below)

EXPECTED STUDENT LEARNING OUTCOMES:
Upon completion of this course the student will be able to:
Manage resources, skills and information
Solve problems
Work interdependently
Use technology
Experience and pursue rigorous learning and complete performance standards
Be able to diagnose and repair vehicles.

ENGINE PERFORMANCE

For every task in Engine Performance the following safety requirement must be strictly enforced:

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.

Veteran Services: Minnesota West is dedicated to assisting veterans and eligible family members in achieving their educational goals efficiently. Active duty and reserve/guard military members should advise their instructor of all regularly scheduled military appointments and duties that conflict with scheduled course requirements. Instructors will make every effort to work with the student to identify adjusted timelines. If you are a veteran, please contact the Minnesota West Veterans Service Office.

"This course will cover the characteristics of hazardous wastes and its safe handling, storage, and disposal."

To receive reasonable accommodations for a documented disability, please contact the campus Student Services Advisor or campus Disability Coordinator as arrangements must be made in advance. In addition, students are encouraged to notify their instructor.

This document is available in alternative formats to individuals with disabilities by contacting the Student Services Advisor or by calling 800-658-2330 or Minnesota Relay Service at 800-627-3529 or by using your preferred relay service.

A Member of the Minnesota State Colleges and Universities System
An Affirmative Action Equal Opportunity Educator/Employer