

AUTO 232

High-Performance Propulsion

3 Credits: 4 Lecture, 7 Lab hours

Community College of Baltimore County

Common Course Outline

Description

AUTO 232 – High-Performance Propulsion: is a course in which students are introduced to the testing, diagnosis and modifying of high-performance engines and related systems.

Pre-requisites: AUTO 136, AUTO 141, AUTO 241

Overall Course Objectives

Upon completion of this course, students will be able to:

1. evaluate high-performance intake systems;
2. evaluate and test high-performance camshaft timing systems;
3. evaluate and test high-performance camshaft ignition systems;
4. evaluate and test high-performance fuel delivery systems;
5. apply power adders to high-performance engines;
6. evaluate and test high-performance engine management systems;
7. evaluate and test a high-performance engine on an engine dynamometer;
8. interpret data acquisition systems;
9. evaluate and test high-performance exhaust systems;
10. discuss the Environmental Protection Agency certification process; and
11. demonstrate compliance with up-to-date Automotive Service Excellence (ASE) Education Foundation tasks from the master course list.

Major Topics

- I. Operation of computer controlled engine management systems
- II. Tuning of fuel injection systems
- III. Tuning of ignition systems
- IV. Tuning of emission systems

Course Requirements

Grading procedures will be determined by the individual faculty member, but will include the following at minimum:

- Three quizzes
- Research paper (6-8 pages typed) or obtain the ASE Professional Certification
- Three homework assignments
- Class participation (lab sheets)
- Midterm exam
- Comprehensive final with a written component and a hands-on individual assessment

The Common Course Outline (CCO) determines the essential nature of each course.

For more information, see your professor's syllabus.

Written assignments and research projects: Students are required to use appropriate academic resources in their research and cite sources according to the style selected by their professor.

Date Revised: 12/3/2024

The Common Course Outline (CCO) determines the essential nature of each course.
For more information, see your professor's syllabus.