AUTO-2812: SPECIAL TOPICS IN AUTOMOTIVE PROJECTS

Cuyahoga Community College

Viewing: AUTO-2812 : Special Topics in Automotive Projects

Academic Term:
Fall 2026

Subject Code
AUTO - Automotive Technology

Course Number:
2812

Title:
Special Topics in Automotive Projects

Catalog Description:
Course provides students ability to work continuously on a specialty long term vehicle project(s) on student or automotive technology owned vehicles. Projects are selected by their instructor before the course is scheduled to begin taking into concern student interests and desires to build on their automotive experience. Projects are guided and/or instructed to completion with the assistance of an ASE Master Certified automotive instructor. Students must provide resources to complete projects on privately owned vehicles.

Credit Hour(s):
3

Lecture Hour(s):
2

Lab Hour(s):
2

Other Hour(s):
0

Requisites

Prerequisite and Corequisite
Students must have completed nine (9) credits of automotive technology courses with a C grade or better, or department approval.

Outcomes

Course Outcome(s):
Applying the terminology and engineering principles of the subject matter in a students selected automotive project(s), and using the correct tools, equipment and service information; students can evaluate, diagnose and maintain vehicle performance taking into account safety, work ethics and behaviors, proper repair techniques and customer needs.

Essential Learning Outcome Mapping:
Critical/Creative Thinking: Analyze, evaluate, and synthesize information in order to consider problems/ideas and transform them in innovative or imaginative ways.

Course Outcome(s):
Shop and personal safety is a primary and ongoing concern while in the repair environment for engine performance; including using tools and equipment, working around supplemental restraint(SRS) or high voltage circuits, wearing personal protection equipment, awareness of personal clothing, adornments and body, and knowledge of fire safety and evacuation routes.

Methods of Evaluation:
Completion of automotive project(s) proposed in initial student project plan from beginning of course.

Course Content Outline:

Course content varies from student to student in what they are completing. Examples of projects: engine replacement, racing performance modification kits for engine or suspension, rebuilding brake system on an older car, hybrid vehicle project, in depth scan tool utilization across many car lines or a transmission rebuild.

Religious Accommodation

Before reviewing the course schedule, students should carefully review the following religious accommodation policy and other required instructional policies:

Religious Accommodation:

Students seeking an accommodation for absences permitted under Ohio's Testing Your Faith Act must provide the instructor with written notice of the specific dates for which the student requires an accommodation and must do so not later than fourteen (14) days after the first day of instruction. Please submit requests for accommodations at this link: https://portal2.tri-c.edu/ReligiousAccommodation/ Religious Accommodation Form. Students with questions about their religious accommodations under Ohio's Testing Your Faith Act may contact the College's Office of General Counsel and Legal Services by phone at 216.987.4856 or via email at legal@tri-c.edu.

Other Required Instructional Policies:

https://www.tri-c.edu/student-resources/curriculum/documents/syllabus-part-b.pdf

Weekly Schedule

	Topics
Week 1	Lecture/Discussion Topic: Introduction to Automotive Projects Course Lab: Lab Safety Procedures Overview
Week 2	Lecture/Discussion Topic: Automotive Projects Background and Supporting Information Lab: Automotive Project Planning Phase
Week 3	Lecture/Discussion Topic: Automotive Projects Background and Supporting Information Lab: Automotive Project Planning Phase
Week 4	Lecture/Discussion Topic: Automotive Projects Background and Supporting Information Lab: Automotive Project Planning Phase
Week 5	Lecture/Discussion Topic: Automotive Projects Update and Corrections Lab: Automotive Project Hands-on Work
Week 6	Lecture/Discussion Topic: Automotive Projects Update and Corrections Lab: Automotive Project Hands-on Work
Week 7	Lecture/Discussion Topic: Automotive Projects Update and Corrections Lab: Automotive Project Hands-on Work
Week 8	Lecture/Discussion Topic: Automotive Projects Update and Corrections Lab: Automotive Project Hands-on Work
Week 9	Lecture/Discussion Topic: Automotive Projects Update and Corrections Lab: Automotive Project Hands-on Work
Week 10	Lecture/Discussion Topic: Automotive Projects Update and Corrections Lab: Automotive Project Hands-on Work
Week 11	Lecture/Discussion Topic: Automotive Projects Update and Corrections Lab: Automotive Project Hands-on Work
Week 12	Lecture/Discussion Topic: Automotive Projects Update and Corrections Lab: Automotive Project Hands-on Work
Week 13	Lecture/Discussion Topic: Automotive Projects Update and Corrections Lab: Automotive Project Hands-on Work
Week 14	Lecture/Discussion Topic: Automotive Projects Review: Lessons Learned Lab: Automotive Projects Review for Hands-on Efficiency and Steps for Saving Time
Week 15	Lecture/Discussion Topic: Automotive Projects Review: Lessons Learned Lab: Automotive Projects Review for Hands-on Efficiency and Steps for Saving Time
Week 16	Final Exam Week

The Course Schedule is subject to change due to pedagogical needs, instructor discretion, parts of term, and unexpected events.

Required/Recommended Readings

Required/Recommended Readings are based upon the specific automotive projects the students are completing. Whether the special project involves engine replacement, racing modifications, rebuilding a brake system on an older car, etc., the instructor provides the students with information on the required/recommended readings for the special project on the first day of class. Obviously, the readings vary depending on the projects itself, but a textbook, website, or service information is to be used throughout the course.

Additional Resources for the Instructor

College provides Identifix and Alldata automotive service information which serves as the main source of reference material for the projects.

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