

AUTO 52 Course Outline as of Fall 1981**CATALOG INFORMATION**

Dept and Nbr: AUTO 52 Title: AUTO TUNE/POLL CTRL

Full Title: Automotive Tune-Up and Pollution Control

Last Reviewed: 9/20/2010

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	4.00	Lecture Scheduled	4.00	17.5	Lecture Scheduled	70.00
Minimum	4.00	Lab Scheduled	0	17.5	Lab Scheduled	0
		Contact DHR	0		Contact DHR	0
		Contact Total	4.00		Contact Total	70.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 140.00

Total Student Learning Hours: 210.00

Title 5 Category: AA Degree Applicable

Grading: Grade Only

Repeatability: 11 - 8 Units Within 4 Semesters

Also Listed As:

Formerly:

Catalog Description:

Preq. Auto 56, concurrent enrollment in Auto 521. Recomm: Eligibility for Engl 100A or equip. Service & repair of automobile ignition, fuel and pollution control systems, use of troubleshooting equipment related to all systems; fulfills the tune up/engine performance prerequisite for the 80 hr clean air car course (Grade Only) (Repeat Code 11)

Prerequisites/Corequisites:

Concurrent Enrollment in AUTO 52L

Recommended Preparation:**Limits on Enrollment:****Schedule of Classes Information:**

Description: Service & repair of automotive ignition fuel & pollution control systems, use of troubleshooting equip related to all systems. Fulfills the Tune-up, Engine Performance prerequisite for the 80-hr clean air car course. (Grade Only)

Prerequisites/Corequisites: Concurrent Enrollment in AUTO 52L

Recommended:

Limits on Enrollment:
Transfer Credit: CSU;
Repeatability: 8 Units Within 4 Semesters

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area	Effective:	Inactive:
CSU GE:	Transfer Area	Effective:	Inactive:
IGETC:	Transfer Area	Effective:	Inactive:
CSU Transfer:	Transferable	Effective: Fall 1981	Inactive: Fall 2017
UC Transfer:		Effective:	Inactive:

CID:

Certificate/Major Applicable:

Certificate Applicable Course

COURSE CONTENT

Outcomes and Objectives:

Students successfully completing this course should have a working knowledge of the operation, diagnosis, and repair of automotive ignition, fuel and pollution control systems. The student should be able to pass the A.S.E. Engine Performance Certification Exam, have completed the prerequisite for the B.A.R 80 Hr course, and enter the automotive trade as an apprentice level technician specializing in engine performance emission control.

Topics and Scope:

1. Review of basic engine operation related to emission control related to emission control.
2. Ignition systems operation and service
 - A. Breaker point ignition
 - B. Electronic ignition system
 - C. Spark control systems
 - D. Emission controls related to ignition systems
 - E. Engine troubleshooting and diagnosis
 1. Scope diagnosis
 2. Infrared diagnosis
 3. Computer trouble code and scanner diagnosis
3. Fuel system operation and service
 - A. Tanks and evaporative emission control
 - B. Fuel delivery systems
 - C. Basic carburetion
 - D. Electronic carburetors
 - E. Electronic fuel injections
 - F. Mechanical fuel injection

- G. Emission controls related to fuel systems
- 4. Other emission controls
 - A. Smog check procedures

Assignment:

At the completion of each unit students will be given an instructor written multiple choice test using a question format similar to the pollution control and automotive technician certification tests. There will also be an instructor written final exam. Students will be required to keep a notebook of all class assignments and class notes which will be graded for completeness and organization. Students may also earn credit for using the "Automaster Series" computer tutorials in the multicurricular computer lab.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

None

Writing
0 - 0%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Exams

Problem solving
0 - 0%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

None

Skill Demonstrations
0 - 0%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice

Exams
0 - 90%

Other: Includes any assessment tools that do not logically fit into the above categories.

None

Other Category
0 - 0%

Representative Textbooks and Materials:

AUTOMOTIVE ENGINE PERFORMANCE TUNE UP, TESTING, SERVICE, by Ken Layne