AUTO 108 Course Outline as of Fall 2009

CATALOG INFORMATION

Dept and Nbr: AUTO 108 Title: CLEAN AIR CAR COURSE
Full Title: Clean Air Car Course Basic & Enhanced
Last Reviewed: 9/21/2015

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	5.00	Lecture Scheduled	5.00	17.5	Lecture Scheduled	87.50
Minimum	5.00	Lab Scheduled	1.00	6	Lab Scheduled	17.50
		Contact DHR	0		Contact DHR	0
		Contact Total	6.00		Contact Total	105.00
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 175.00 Total Student Learning Hours: 280.00

Title 5 Category:	AA Degree Applicable
Grading:	Grade or P/NP
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	AUTO 399.5

Catalog Description:
This course is designed for automotive professionals who wish to obtain or renew smog certification. This is a Bureau of Automotive Repair (BAR) approved Clean Air Car Course, which covers the smog check testing procedure for both the basic and enhanced area smog check. This course partially fulfills the Bureau of Automotive Repair education qualification to take the smog check examination. Minimum of nine units in Auto Electric and Tune-Up Engine Performance OR one year of verifiable trade experience in auto electrical, tune-up/engine performance and emission control diagnosis and repair is strongly recommended in order to be successful in this course.

Prerequisites/Corequisites:

Recommended Preparation:
Course Completion of AUTO 56

Limits on Enrollment:

Schedule of Classes Information:
Description: This course is designed for automotive professionals who wish to obtain or renew

smog certification. This is a Bureau of Automotive Repair (BAR) approved Clean Air Car Course, which covers the smog check testing procedure for both the basic and enhanced area smog check. This course partially fulfills the Bureau of Automotive Repair education qualification to take the smog check examination. Minimum of nine units in Auto Electric and Tune-Up Engine Performance OR one year of verifiable trade experience in auto electrical, tune-up/engine performance and emission control diagnosis and repair is strongly recommended in order to be successful in this course. (Grade or P/NP)
Prerequisites/Corequisites:
Recommended: Course Completion of AUTO 56
Limits on Enrollment:
Transfer Credit:
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:

CSU Transfer:	Effective:	Inactive:
UC Transfer:	Effective:	Inactive:

CID:

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Outcomes and Objectives:
Upon completion of this course, the student will be able to:
1. Perform a Basic and Enhanced area smog check.
2. Perform all required record keeping related to the smog check tests.
3. Properly diagnose emission failures.

Topics and Scope:

1. Review of emission control test procedure in Basic and Enhanced areas.
2. Emission control systems operation and service
   A. PCV (Positive Crankcase Ventilation) systems
   B. EVAP (Evaporative) system
   C. Spark control system
   D. TAC (Thermostatic Air Cleaner) systems
   E. Catalytic converters
   F. EGR (Exhaust Gas Recirculation) system
   G. AIS (Air Injection System) system
3. Basic and Enhanced Smog check procedures
   A. Vehicle identification and data entry
   B. Emission control system identification and data entry

C. Basic area two speed tailpipe test
D. Enhanced area ASM (Acceleration Simulation Mode) dynamometer test
E. Functional tests
4. Laws related to technician licensing
5. Laws related to Smog Check Station licensing
6. Emission failure diagnosis

Assignment:

1. Student will be required to keep a notebook of all BAR required assignment sheets and lab worksheets; the notebook will be graded for completeness and organization.
2. Assigned reading 20 to 30 pages a week.
3. Perform Basic and Enhanced smog check procedures and correctly diagnosis emission failures.
4. Quizzes, mid-term, and final exam.

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, This is a degree applicable course but assessment tools based on writing are not included because problem solving assessments and skill demonstrations are more appropriate for this course.	Writing 0 - 0%

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

Lab reports; notebooks	Problem solving 10 - 20%

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

Lab exercises	Skill Demonstrations 30 - 40%

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

Multiple choice exams and quizzes	Exams 35 - 45%

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

Attendance and participation	Other Category 0 - 10%

Representative Textbooks and Materials:
Laws and Regulations Pertaining to California Automotive Repair Dealers. Bureau of

Automotive Repair, 2007 edition
Advanced Emissions Diagnostics. California Institute of Automotive Technology, 1998 (Classic)
OBD II & Second Generation Scan Tools. NAPA Institute of Automotive Technology, 1998 (Classic)
Smog Check Inspection Procedures Manuals. Bureau of Automotive Repair, 2008
Smog Check Reference Guide. Bureau of Automotive Repair, 2008
Auto 108 Class Reader. Norton, 2008