AUTO 100 Course Outline as of Spring 2006

CATALOG INFORMATION

Dept and Nbr: AUTO 100 Title: INTRO AUTOMOTIVE TECH
Full Title: Introduction to Automotive Technology
Last Reviewed: 3/13/2006

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	2.50	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	2.50	Lab Scheduled	2.00	8	Lab Scheduled	35.00
		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: 70.00 Total Student Learning Hours: 140.00

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:	

Catalog Description:
Introduction to theory of operation, routine maintenance, technical vocabulary, components, systems, use of basic tools and safety procedures utilized every day by an automotive repair technician. Workplace skills will include the basic maintenance and repair of the automobile and its systems for the entry level auto maintenance technician or auto enthusiast.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Schedule of Classes Information:
Description: Introduction to theory of operation, routine maintenance, technical vocabulary, components, systems, use of basic tools and safety procedures utilized every day by an automotive repair technician. Workplace skills include basic maintenance and repair of the automobile and its systems for the entry level auto maintenance technician or auto enthusiast. (Grade or P/NP)

Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 100 or ESL 100
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. Apply safety standards and practices in an auto shop environment.
2. State the theory behind the operation of all of the basic systems on an automobile.
3. Describe and identify the components used in those systems.
4. Demonstrate a working knowledge of the basic operation of all major automobile systems.
5. Describe the environmental issues and apply appropriate procedures involved with disposal of hazardous material from the automobile when repairing or disposing of the vehicle.
6. Identify and properly use and care for tools and equipment.
7. Discuss the automotive industry and identify related employment opportunities.

Topics and Scope:

I. Introduction
   A. Overview of the automobile
   B. Shop safety
   C. Hazardous materials and disposal procedures
   D. Tools, equipment, and fasteners
   E. Record keeping for the automotive industry
II. Internal Combustion Engines
III. Engine Lubrication
IV. Cooling Systems
V. Fuel Systems

VI. Electrical Systems
VII. Ignition Systems
VIII. Emission Systems
IX. Powertrain
X. Braking Systems
XI. Steering and Suspension Systems
XII. Air Conditioning Systems
XIII. Accessories
XIV. Automobiles in the Future
XV. The Industry and Related Employment

Assignment:

1. Reading, approximately 10 - 25 pages per week.
2. Worksheets to be completed with each reading assignment.
3. Objective exam at the completion of each unit.
4. Final exam.
5. Students will be required to keep a notebook of all class handouts, assignments, and class notes which will be graded for completeness and organization.
6. Skill demonstrations in the lab with worksheets.
7. Performance exams (2-5).

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.

Worksheets.	Problem solving 5 - 10%

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

Performance exams, Skill demonstrations with worksheets.	Skill Demonstrations 5 - 10%

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

Multiple choice	Exams 75 - 80%

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

Attendance and participation. Organized notebook submitted to instructor.	Other Category 5 - 10%

Representative Textbooks and Materials:
Duffy, James E. Modern Automotive Mechanics. Goodheart Willcox, 2004.
Instructor prepared materials.