

CUYAMACA COLLEGE
COURSE OUTLINE OF RECORD

AUTOMOTIVE TECHNOLOGY 100L – INTRODUCTION TO AUTOMOTIVE TECHNOLOGY LABORATORY

3 hours laboratory, 1 unit

Catalog Description

Basic laboratory environment designed to prepare students for entry into the Automotive Technology major. This course includes repair, service, and basic diagnostic procedures of a typical passenger car or light truck. A student may use the department laboratory to perform hands on tests and repairs, using automotive tools and equipment. AUTO 100L is the lab companion course of AUTO 99 Introduction to Automotive Technology lecture.

Prerequisite

None

Course Content

- 1) Introduction and safety
- 2) Hand tools
- 3) Lubrication system
- 4) Cooling system
- 5) Fuel system
- 6) Electrical system
- 7) Ignition system
- 8) Emission control system
- 9) Power train
- 10) Suspension and steering
- 11) Brakes

Course Objectives

Students will be able to:

- 1) Demonstrate standardized safety and hazardous waste handling practices.
- 2) Perform basic vehicle maintenance service to prescribed industry standards.
- 3) Utilize required tools and equipment to perform basic vehicle maintenance service to major automotive systems.

Method of Evaluation

A grading system will be established by the instructor and implemented uniformly. Grades will be based on demonstrated proficiency in subject matter determined by multiple measurements for evaluation, one of which must be essay exams, skills demonstration or, where appropriate, the symbol system.

- 1) Quizzes, written exams, and hands-on performance exam that measure students' ability to safely identify necessary maintenance repairs, and perform necessary tasks related to basic vehicle maintenance service.
- 2) Practical exercises that measure students' progress toward mastering basic vehicle maintenance service.

Special Materials Required of Student

- 1) Basic hand tool set
- 2) Access to high-speed internet

- 3) A personal computer or tablet with a large screen to view wiring diagrams and components.

Minimum Instructional Facilities

- 1) Auto tech lab (6 bays) and basic automotive service equipment
- 2) Demonstration classroom
- 3) Web-based training and conferencing
- 4) Remote access programming

Method of Instruction

- 1) Demonstration
- 2) Individual instruction
- 3) Web-based training simulations

Out-of-Class Assignments

- 1) Reading assignments
- 2) Written homework
- 3) Web-based training modules

Texts and References

- 1) Required (representative example):
 - a. CDX Master Automotive Technician Series, 2020, ISBN: 9781284102093.
- 2) Supplemental:
 - a. Supplied: Mitchell Pro Demand and Repair Information.

Exit Skills

Students having successfully completed this course exit with the following skills, competencies and/or knowledge:

- 1) Work safely in automotive lab environment.
- 2) Select and properly use tools to perform basic automotive inspections.

Student Learning Outcomes

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

- 1) Demonstrate standardized safety and hazardous waste handling practices.
- 2) Perform basic vehicle maintenance service to prescribed industry standards.
- 3) Utilize required tools and equipment to perform basic vehicle maintenance inspections to major automotive systems.