Laboratory Contact Hours: 48-54; Outside-of-Class Hours: 0; Total Student Learning Hours: 48-54

CUYAMACA COLLEGE
COURSE OUTLINE OF RECORD

Automotive Technology 100L – Introduction to Automotive Maintenance and Light Repair Laboratory

3 hours laboratory, 1 unit

Catalog Description
This laboratory course is designed to prepare students for entry into the Automotive Technology and Maintenance and Light Repair major. This course includes the basic maintenance and light repair procedures for a typical passenger car or light truck. A student will perform entry level maintenance procedures using automotive tools and equipment. AUTO 100L is the lab companion course of AUTO 099 Introduction to Automotive Technology lecture.

Prerequisite
None

Course Content
1) Introduction and safety
2) Hand tools
3) Lubrication service
4) Cooling system inspection
5) Fuel services
6) Battery tests
7) Ignition maintenance
8) Engine related maintenance
9) Fluid condition tests
10) Suspension and steering inspections
11) Brake system visual inspections and testing
12) Tire repair and services
13) Wiper and washer systems
14) Lighting inspections
15) Repair order documenting
16) Multipoint inspections
17) Handling hazardous waste
18) Vehicle lifting

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:** assigned course materials, manuals, content on websites, and more.
2) **Writing:** homework where students safely identify necessary maintenance repairs, and more.
3) **Other:** web-based training modules, and more.

Texts and References
1) Required (representative example):
   a. VanGelder, Kirk. Fundamentals of Automotive Technology. Jones and Bartlett Learning, 2023.
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) Communicate effectively and professionally in a diverse setting that includes prospective colleagues, clients, and supervisors.
3) Perform basic vehicle maintenance services to prescribed industry standards.
4) Utilize required tools and equipment to perform basic vehicle maintenance inspections