

ARIZONA WESTERN COLLEGE  
SYLLABUS

## AUT 100 BASIC SERVICE AND SYSTEMS

Credit Hours: 3 Lec 2 Lab 2

PREREQUISITE: None

COURSE DESCRIPTION

Designed to provide a foundation for beginning automotive students; providing an overview of automotive systems, introduction to hybrid and green technology, shop safety, tools, service information, and complete maintenance of the automobile.

1. COURSE GOAL

Student will become knowledgeable in terminology, construction, operation, maintenance, repair of the internal combustion engine, tools, measuring devices, fasteners, and service information. Student will understand the maintenance of the automotive engine, accessories, suspension, and power train.

2. OUTCOMES

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

- 2.1 list the basic components of an internal combustion engine.
- 2.2 describe the main types of automotive frame designs.
- 2.3 describe the operation of a four-stroke cycle engine.
- 2.4 describe the purpose and operation of the cooling system.
- 2.5 be acquainted with hazardous chemicals and the procedures for handling these chemicals, i.e.:
  - 2.5.1 hot tank compounds.
  - 2.5.2 aerosol sprays.
  - 2.5.3 battery electrolytes.
  - 2.5.3 anti-freeze.
  - 2.5.4 waste materials.
- 2.6 demonstrate the ability to use/read precision measuring instruments.
- 2.7 identify the main parts of the fuel system.
- 2.8 identify the main components of the ignition system.
- 2.9 describe the main components of the starting system.
- 2.10 identify the main components of the charging system.
- 2.11 explain the purpose of the power train system.
- 2.12 identify the main components of the chassis system.
- 2.13 identify the common safety hazards found in the automotive shop.
- 2.14 identify and describe the safe use of common tools used in the automotive shop.
- 2.15 identify and explain the safe use of the common threading tools used in the automotive shop.
- 2.16 identify and explain the use of measuring instruments used in the automotive shop.
- 2.17 identify and explain areas of maintenance done under the hood of the automobile in service shops.
- 2.18 identify and explain areas of maintenance of the under vehicle maintenance.
- 2.19 identify and explain areas of maintenance of the exterior of the automobile.

3. METHODS OF INSTRUCTION

- 3.1 Lecture
- 3.2 Demonstration
- 3.3 Presentations
- 3.4 Class discussion

4. LEARNING ACTIVITIES

- 4.1 Textbook
- 4.2 Presentation
- 4.3 Lecture
- 4.4 Lab

5. EVALUATION

- 5.1 Lab activities
- 5.2 Exams

6. STUDENT RESPONSIBILITIES

- 6.1 Under AWC Policy, students are expected to attend every session of class in which they are enrolled.
- 6.2 If a student is unable to attend the course or must drop the course for any reason, it will be the responsibility of the student to withdraw from the course. Students who are not attending as of the 45th day of the course may be withdrawn by the instructor. If the student does not withdraw from the course and fails to complete the requirements of the course, the student will receive a failing grade.
- 6.3 Americans with Disabilities Act Accommodations: Arizona Western College provides academic accommodations to students with disabilities through AccessABILITY Resource Services (ARS). ARS provides reasonable and appropriate accommodations to students who have documented disabilities. It is the responsibility of the student to make the ARS Coordinator aware of the need for accommodations in the classroom prior to the beginning of the semester. Students should follow up with their instructors once the semester begins. To make an appointment call the ARS front desk at (928) 344-7674 or ARS Coordinator at (928) 344-7629, in the College Community Center (3C) building, next to Advising.
- 6.4 Academic Integrity: Any student participating in acts of academic dishonesty—including, but not limited to, copying the work of other students, using unauthorized “crib notes”, plagiarism, stealing tests, or forging an instructor’s signature—will be subject to the procedures and consequences outlined in AWC’s Student Code of Conduct.
- 6.5 Texts and Notebooks: Students are required to obtain the class materials for the course.
- 6.6 Arizona Western College students are expected to attend every class session in which they are enrolled. To comply with Federal Financial Aid regulations (34 CFR 668.21), Arizona Western College (AWC) has established an Attendance Verification process for “No Show” reporting during the first 10 days of each semester.  
Students who have enrolled but have never attended class may be issued a “No Show” (NS) grade by the professor or instructor and receive a final grade of “NS” on their official academic record. An NS grade may result in a student losing their federal financial aid.  
For online classes, *student attendance in an online class is defined as the following* (FSA Handbook, 2012, 5-90):
  - Submitting an academic assignment
  - Taking an exam, an interactive tutorial or computer-assisted instruction
  - Attending a study group that is assigned by the school
  - Participating in an online discussion about academic matters
  - Initiating contact with a faculty member to ask a question about the academic subject studied in the course