

Virginia Western Community College
AUT 101
Introduction to Automotive Systems

Prerequisites

None

Course Description

Introduces fundamental systems of automobile, the engine fuel, exhaust, electric, ignition, lubrication, cooling, transmission, steering, brake, and suspension systems. Teaches theory and function of each system. Demonstrates operation.

Semester Credits: 4 Lecture Hours: 2 Lab/Clinical/Internship Hours: 4

Required Materials**Textbook:**

Automotive Technology Principles, Diagnosis and Service. 4th edition. ISBN 978-0-13-254261-6.

Other Required Materials:

- Pearson Publishers online material
- Safety glasses
- Closed-toe shoes
- ASE Test Prep CD

Course Outcomes

At the completion of this course, the student should be able to:

Demonstrate and explain operation of the following systems:

- Fuel
- Exhaust
- Ignition
- Lubrication
- Cooling
- Transmission
- Steering
- Brakes, & Suspension

Topical Description

- Chapter 18: Gasoline Engine Operation
- Chapter 22: Coolant System Operation
- Chapter 23: Lubrication System Operation
- Chapter 69: Ignition System Components & Operation
- Chapter 93: Braking System Principles
- Chapter 112: Suspension System Principles
- Chapter 127: Automatic Trans/Transaxle Principles

Notes to Instructors

- ASE testing should be completed by week 15
- Practical exam is given on week 16
- Exhaust & Fuel systems are to be covered in the Engine operation section of course.