

**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.