

**Virginia Western Community College**  
**AUT 266**  
**Automotive Alignment, Suspension & Steering**

**Prerequisites**

None

**Course Description**

Introduces use of alignment equipment in diagnosing, adjusting, and repairing front and rear suspensions. Deals with repair and servicing of power and standard steering systems.

**Semester Credits: 4 Lecture Hours: 1 Lab/Clinical/Internship Hours: 6**

**Required Materials****Textbook:**

CDX Automotive textbook with Light Vehicle Online 2yr Access. ISBN#: 9781284059465.

**Other Required Materials:**

- Safety Glasses
- Closed-toe shoes
- CDX Automotive Interactive CD
- Publisher's online material
- ASE Online Prep Tests

**Course Outcomes**

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

- Explain & discuss the construction of steel and alloy wheels
- Demonstrate lug tightening procedures and torque
- Discuss and identify components in the construction of tires
- Demonstrate the repair & balancing of tires
- List and describe the various components of the steering and suspension systems
- Repair and/or replace parts in a steering and/or suspension systems
- Diagnosis and adjust alignment problems
- 70% of students completing AUT 266 will demonstrate how to diagnose, adjust, and repair front and rear suspensions by receiving a score of 70% or higher on the ASE student certification test on suspension and steering or the final exam

## **Topical Description**

| Section XII<br>Chapters | Suspension and Steering<br>Title           |
|-------------------------|--|
| 109                     | Tires & Wheels                             |
| 110                     | Tire Pressure Monitoring                   |
| 111                     | Tire & Wheel Service                       |
| 112                     | Suspension Systems Principles & Components |
| 113                     | Front Suspensions and Service              |
| 114                     | Rear Suspension and Service                |
| 115                     | Electronic Suspension Systems              |
| 116                     | Steering Columns and Gears                 |
| 117                     | Steering Linkage and Service               |
| 118                     | Power Steering Operation                   |
| 119                     | Wheel Alignment Principles                 |
| 120                     | Alignment and service                      |

## **Notes to Instructors**

- CDX online testing should be completed by week 15
- Practical exam is given on week 16
- ASE online testing
- Electronic tire monitoring system integration will be discussed in the on-line computer classes