

Virginia Western Community College
AUT 265
AUTOMOTIVE BRAKING SYSTEMS

Prerequisites

None

Course Description

Presents operation, design, construction, repair, and servicing of braking system, including anti-lock brake systems (ABS). Explains uses of tools and test equipment, evaluation of test results, estimation of repair cost for power, standard and disc brakes.

Semester Credits: 4 Lecture Hours: 3 Lab/Clinical/Internship Hours: 3

Required Materials**Textbook:**

Fundamentals of Automotive Technology, Principles, and Practice, 3rd Edition, ISBN: 978-1-284-23035-2

Other Required Materials:

- Safety Glasses
- Closed-toe shoes

Course Outcomes

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

- List the parts of the braking system
- Discuss mechanical & hydraulic Advantage
- Describe, diagnose, and replace or repair valves
- Replace and/or repair brake lines
- Identify various brake fluids and applications
- Demonstrate bleeding procedures of hydraulic lines
- Perform repair and/or maintenance to drum and disc style braking systems
- Adjust brakes, to include drum, disc, and emergency/parking brakes
- Diagnosis and Service Antilock Braking Systems (ABS)

Topical Description

Braking System Principles
Brake Hydraulic Systems
Hydraulic Valves and Switches
Brake Fluids and Lines
Brake Bleeding and Adjustments
Drum Brakes Diagnosis and Repair
Disc Brakes Diagnosis and Repair
Parking Brake Operation and Repair
Power Brake Unit Operation, Diagnosis, & Service
ABS diagnosis and Repair
Electronic Stability Control Systems
ASE test Preparation and Study Guide Review