

## **AUTO 126**

### **Automotive Braking Systems**

4 Credits: 2 Lecture, 6 Lab hours

Community College of Baltimore County  
Common Course Outline

#### **Description**

**AUTO 126 – Automotive Braking Systems:** is a course in which students are introduced to diagnosis and repair of automotive brake systems and components. Topics include inspection, disassembly, overhaul, repair of hydraulic systems, disc brake systems, drum brake systems, power brake systems, antilock brake systems, and associated repairs. Individual Major Topics are covered in more detail based on manufacturer specific curriculum.

**Pre-requisites:** AUTO 131

**Co-requisites:** ACLT 053 or (ESOL 052 and ESOL 054) and MATH 082

#### **Overall Course Objectives**

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

1. remove, bench bleed, and replace a master cylinder;
2. remove, clean, inspect, and measure brake drums and service or replace as needed using proper safety procedures;
3. mount brake drum on lathe and machine braking surface;
4. mount brake rotor on lathe and machine braking surface;
5. remove, clean, and inspect brake shoes, including all related brake hardware, lubricate where necessary and reassemble;
6. install wheels, including properly torquing the lug nuts, making final checks, and adjustments;
7. remove, clean, and inspect brake pads and retaining hardware to determine needed service;
8. remove and replace a rotor;
9. diagnose, inspect, and repair antilock brake systems; and
10. perform all required Automotive Service Excellence (ASE) Education Foundation tasks from the ASE master course list.

#### **Major Topics**

- I. Hydraulic theory
- II. Brake system operation
- III. Service, diagnosis, and repair of the brake system
- IV. Antilock brake theory, service, inspection, and repair
- V. Vehicle stability control systems

#### **Course Requirements**

The Common Course Outline (CCO) determines the essential nature of each course.  
For more information, see your professor's syllabus.

Grading will be determined by the individual faculty member, but shall include the following, at a minimum:

- three quizzes
- weekly lab projects
- research paper (6-8 pages typed) or obtain the ASE Professional Certification
- three homework assignments
- active engagement in class activities
- one midterm exam
- one comprehensive final exam with a written component and a hands-on individual assessment

Written assignments and research projects: Students are required to use appropriate academic resources in their research and cite sources according to the style selected by their professor.

### **Other Course Information**

This class combines lab with lecture and students apply knowledge learned in a hands-on environment.

Date Revised: 12/5/2023