

**Common Course Outline**  
**AUTO 126**  
**Repairing Automotive Brake**  
**Systems**  
**4 Credits**  
**Community College of Baltimore County**

**Description**

**AUTO 126 – Repairing Automotive Brake Systems** introduces students to diagnosis and repair of automotive brake systems and components; includes inspection, disassembly, overhaul, repair of hydraulic systems, disc brake systems, drum brake systems, power brake systems, antilock brake systems, and associated repairs.

**4 credits:** 3 lecture hours; 9 lab hours

**Prerequisite:** AUTO 100 or written permission from program coordinator required

**Corequisite:** ACLT 052 or ACLT 053 or (ESOL 052 and ESOL 054) and MATH 081

**Overall Course Objectives**

Upon completion of this course students will be able to:

1. remove, bench bleed, and replace master cylinder;
2. remove, clean (using proper safety procedures), inspect and measure brake drums, and service or replace as needed;
3. mount brake drum on lathe, machine braking surface;
4. remove, clean and inspect brake shoes, springs, pins, clips, levers, adjusters/self-adjusters, other related brake hardware, backing support plates, and lubricate and reassemble;
5. reinstall wheel, torque lug nuts and make final checks and adjustments;
6. remove, clean and inspect pads and retaining hardware and determines needed service;
7. remove and replace rotor;
8. mount brake rotor on lathe and machine braking surface;
9. diagnose, inspect and repair antilock brake systems; and
10. perform all other up-to-date NATEF (National Automotive Technicians Education Foundation) tasks from the 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

## **Course Requirements**

### **Grading/Exams:**

Grading procedures will be determined by the individual faculty member but will include the following:

- A minimum of 4 quizzes
- A minimum of 8 lab projects
- A minimum of 1 written paper
- A minimum of 4 homework assignments
- One mid-term exam
- Class participation
- Comprehensive final skills assessment (required)

### **Written Paper**

1. Topic of the paper will be selected by the student and should relate to the subject material of the course.
2. The paper should be 6 to 8 pages in length, typewritten, and double-spaced. It should include in addition to the 6 to 8 pages of text, an author and title page and bibliography utilizing a minimum of three reference resources excluding classroom materials.
3. All papers are due when 80% of the class sessions are completed. Papers submitted late will be deducted one letter grade.

Written Assignments: Students are required to utilize appropriate academic resources.

### **Other Course Information**

AUTO 126 approaches automotive brake systems as a learning process that incorporates theory with laboratory experience. To complete the course successfully, practical ability as well as knowledge of theory must be demonstrated.

This is an Automotive Technology core course and is taught in an 8-week format.