

Course Outline
AUTO 171
Repairing Automotive Suspension Systems
4 Credit Hours
3 Lecture Hours
3 Lab Hours

The Community College of Baltimore County

Description

Repairing Automotive Suspension Systems

Discusses diagnosis and repair of automotive steering and suspension systems and their components; include diagnosis, disassembly, repair of suspension, and wheel alignment. \$20.00 fee required.

Overall Course Objectives

Upon completion of this course the student will be able to:

1. Diagnose power non-rack and pinion steering gear binding, uneven turning effort, looseness, and hard steering, fluid leakage problems and determine needed repairs.
2. Diagnose power rack and pinion steering gear vibration, looseness, and hard steering problems to determine needed repairs.
3. Flush, fill, and bleed power steering system.
4. Remove, inspect, replace, and adjust strut (compression/tension) rods and bushings.
5. Remove, inspect, replace MacPherson strut cartridge or assembly, strut coil spring, insulators, and upper strut bearing mount.
6. Check and adjust front and rear wheel camber to determine needed repair.
7. Check and adjust caster to determine needed repairs.
8. Check and adjust front wheel toe and adjust as needed.
9. Check and adjust rear wheel toe.
10. Check rear wheel thrust angle to determine needed repairs.
11. Diagnose tire wear patterns to determine needed repairs.

Major Topics

1. Repair of suspension and steering
2. Adjustment of suspension and steering system
3. Diagnosis of the suspension and steering system

Course Requirements

One Term 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.

Grading/Exams:

Grading procedures will be determined by the individual faculty member and will be provided on the first day of class. A student can expect a minimum of eight grades from the following categories:

1. Quizzes
2. Lab projects
3. Written paper
4. Homework assignments
5. Midterm exam
6. Class participation
7. Comprehensive final (required)

Other Course Information

This course is an Automotive Technology elective.