

Common Course Outline
AUCR 202
STRUCTURAL ANALYSIS & DAMAGE REPAIR II
5 Semester Hours

The Community College of Baltimore County

Description

AUCR 202- 5 credits-STRUCTURAL ANALYSIS & DAMAGE REPAIR II

places emphasis on the application of structural collision damage repair. The course covers the application of procedures such as measuring, analyzing damaged unibody and body-over-frame vehicles, repairing damaged and misaligned vehicles, inspection, removal and replacement of parts or sections of a vehicle, which may be unsafe, for repair. The course also emphasizes restoring of corrosion protection. Student technicians practice applying, measuring, and analyzing, damaged vehicles then implementing a repair plan to restore vehicles to their pre-accident condition using manufacturers' and industry recommendations.

5 Credits: 3 Lecture hours per week; 6 Laboratory hours per week

Prerequisite(s): AURC 102

Overall Course Objectives

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

1. Comply with personal and environmental safety practices associated with clothing, eye protection, and use of chemicals, hand tools and power equipment;
2. Diagnose and analyze unibody vehicle centerline misalignment using centering gauges;
3. Diagnose and analyze unibody vehicle length and width using a tram gauge;
4. Determine the locations of all suspension, steering and power train component attaching points to the body;
5. Diagnose and measure unibody vehicles using a dedicated (fixture) measuring system;
6. Diagnose and measure unibody vehicles using a universal measuring system (mechanical, electronic, laser);
7. Determine the extent of the direct and indirect damage and direction of impact and plan the methods and sequence of repair;
8. Remove folds, curves, creases and dents using power tools and hand tools to restore damaged areas to proper contours and dimensions;
9. Determine the extent of damage to structural steel body panels; repair or replace;
10. Remove and replace damaged sections of structural steel body panels in accordance with manufacturers' specifications and
11. Restore corrosion protection to repaired or replaced unibody structural areas.

Major Topics

- I. Diagnose and analyze unibody vehicle centerline misalignment
- II. Determine the locations of attaching points to the body of suspension, steering and power train component
- III. Determine the extent of damage to structural steel body panels
- IV. Power tools and hand tools use
- V. Restore damaged body panels

Course Requirements

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

Writing: The individual faculty member will determine specific writing assignments.

Other Course Information

This course is a Collision repair core course.
This course is taught in a computerized environment.

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common Course Outline.

(8) Date Revised: 04/11/05