

**Common Course Outline**  
**AUCR 201**  
**NON-STRUCTURAL ANALYSIS & DAMAGE REPAIR II**  
**5 Semester Hours**

**The Community College of Baltimore County**

**Description**

**AUCR 201- 5- Credits- NON-STRUCTURAL ANALYSIS & DAMAGE REPAIR II**

helps students develop a broader knowledge in both theory and application of vehicle repair procedures; the repair of body panels using hammer and dolly; heat and cold shrinking; the proper mixing, application, shaping, and finish sanding of body filler. The course also provides practical application in forming and smoothing filled areas, and repairing scratches and nicks. The course provides a broad exposure to the identification and repair procedures (both welding and bonding) of plastic parts. The course covers both theoretical knowledge and application of the procedures to repair fixed and moveable glass, and of the procedures needed to remove and replace interior components and parts.

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

Prerequisite(s): AUCR 101

**Overall Course Objectives**

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

1. Identify the types of plastic repair procedures; clean and prepare the surface of plastic parts in accordance with industry guidelines;
2. Repair plastic parts with hot air welding;
3. Repair plastic parts with airless welding;
4. Repair plastic parts with urethane or epoxy adhesive; use reinforcements if necessary;
5. Repair holes and cuts in rigid and flexible plastic parts using backing materials and adhesives;
6. Retexture plastic parts;
7. Remove damaged areas from rigid exterior SMC (sheet molded compound) panels; repair with partial panel;
8. Repair vinyl-clad urethane foam parts;
9. Replace bonded SMC (sheet molded compound) body panels; straighten or align panel supports;
10. Prepare repaired areas for refinishing;

11. Inspect, adjust, repair or replace window regulators, run channels, glass, power mechanisms and related controls and
12. Comply with personal and environment safety practices associated with clothing, eye protection, use of chemicals and tools and power equipment.

### **Major Topics**

- I. Heat and cold shrinking using a hammer and dolly
- II. The proper shaping and finish sanding of body filler panels
- III. Practical application in forming and smoothing filled areas, repairing scratches and nicks
- IV. Identification and repair procedures (both welding and bonding) for plastic parts
- V. Theoretical and application of the procedures to repair fixed and moveable glass
- VI. Procedures needed to remove and replace interior components and parts

### **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