



CENTRAL PIEDMONT COMMUNITY COLLEGE

AUB 131

Structural Damage I

Syllabus Contents:
Course Description
Course Objectives
Weekly Outline
Student Evaluation
Safety Regulations
Tool List

Time Requirements:
16 Week Session
2 Class Hours/Week
4 Lab Hours/Week

4 Semester Hours Credit

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TEXT: *MOTOR AUTO BODY REPAIR*; Fifth Edition Robert Scharff,
James E. Duffy

AUB 131

Structural Damage I

Prerequisites: None

Course Description

This course introduces safety, equipment, structural damage analysis, and damage repairs. Topics include shop safety, design and construction, structural analysis and measurement, equipment, structural glass, repair techniques, and other related topics. Upon completion, students should be able to analyze and perform repairs to a vehicle that has received light/moderate structural damage.

Course Objectives

1. Identify safety procedures associated with automotive repair.
2. Learn different types of structural damage.
3. Learn set-up procedures on the frame machine.
4. Learn set-up procedures for the measuring system.
5. Identify correct clamps during set-up.
6. Understand and identify vehicle parts and construction.
7. Perform corrosion control procedures after completed repairs.
8. Perform sectioning procedure in accordance with ICAR.
9. Remove and replace structural glass.
10. Perform measuring procedures.
11. Perform welding procedures during repairs.
12. Monitor wheel alignment angles during repairs.
13. Analyze vehicle damage.
14. Learn about the various metals associated with vehicle construction.
15. Identify vehicle tolerances.
16. Identify direct and indirect damage.

WEEKLY OUTLINE

AUB 131
Structural Damage I
Curriculum Program

Week 1	Orientation	Delmar Video
Week 2	Vehicle Construction Technology	Chapter 2
Week 3	Auto Body Repair History	Chapter 2
Week 4	Reading Vehicle Frame Data Sheet	Chapter 17
Week 5	Reading Vehicle Frame Data Sheet	Chapter 17
Week 6	Measuring Vehicle Damage	Chapter 17
Week 7	Using Power Tools	Chapter 5
Week 8	Mid Term Review and Test	
Week 9	Unibody Realignment	Chapter 18
Week 10	Unibody Realignment	Chapter 18
Week 11	Unibody Realignment	Chapter 18
Week 12	Lab Projects	
Week 13	Lab Projects	
Week 14	Lab Projects	
Week 15	Review for Final Exam	
Week 16	Clean Shop and Final Exam	

- It may be necessary to switch these modules around to meet shop requirements.

Student Evaluation

Student Grade Point Average

Students are graded according to the following grade point system.

The following grades will not be used to compute the grade point average.

Grade	Point Value	Description	I	Incomplete
A	4	Excellent	W	Withdrawal
B	3	Very Good	U	Unsatisfactory
C	2	Satisfactory	AUD	Audit
D	1	Poor	N	Never Attended
F	0	Failing	X	Credit by examination

Since this course is preparatory to entering the automotive service industry, job attitude, neatness, promptness and care of equipment will be considered part of the final grade. The final grade on these items will be determined by the instructor and based upon accepted industry standards.

For a grade "A"

Complete all written tests with an average of 93% to 100 %. Attend 90% of all scheduled class/lab hours. Complete all lab/shop work in a manner that would be determined EXCELLENT in an actual shop.

For a grade "B"

Complete all written tests with an average of 85% to 92%. Attend 85% of all scheduled class/lab hours. Complete all lab/shop work in a manner that would be determined VERY GOOD in an actual shop.

For a grade "C"

Complete all written tests with an average of 77% to 84%. Attend 80% of all scheduled class/lab hours. Complete all lab/shop work in a manner that would be determined SATISFACTORY in an actual repair shop.

For a grade "D"

Complete all written tests with an average of 70% to 76%. Attend 80% of all scheduled class/lab hours. Complete all lab/shop work in a manner that would be determined POOR in an actual repair shop.

Auto-Body Repair Program Safety Regulations

1. Instructor must be present any time a class or lab is in session
2. Use of safety glasses is required in all labs.
3. Any safety hazard should be reported to the instructor immediately.
4. Floor must be kept clear of any liquid spills or tripping hazards.
5. No equipment may be operated by students until they receive instruction on proper, safe operation of that equipment.
6. Vehicle lifts must be mechanically secure before under vehicle work is performed.
7. Uses of jack stands are required when using a floor jack to raise vehicle.
8. Open-type shoes (sandals) are not permitted in any lab.
9. Any loose-fitting clothing or jewelry must be secured so that is it not a hazard or inconvenience.
10. Shorts or sleeveless shirts are not permitted.
11. Smoking is permitted in designated areas only.
12. Students and faculty must follow OSHA rules concerning exposure to blood borne diseases.
13. Students are required to leave the lab areas clean and in order before being dismissed from class.
14. Cell phones and pagers must be put on silent or vibrate during all class and lab meetings so that their operation does not interfere with class activities.
15. Students are expected to meet for the entire class period in order to receive credit for that day.
16. Visitors are not permitted inside of the lab areas.
17. Students are not permitted to wash their vehicle unless it meets class objectives.
18. Items that are specified by your instructor must be brought to every class meeting.
19. Students are required to furnish all of his or her materials when working on their vehicle. The school furnishes masking paper, spray guns, and a place to work.
20. Students are not to assemble in the office unless they have business with an instructor.
21. No music is to be played around the CAT Building.
22. Students that miss over 20% of the class will not pass the class.
23. Students should no ask other instructors for tools or supplies.

Tool List

1. Safety Glasses

2. Metric Tape Measure
3. Leather Gloves
4. Text Book

When the lab is open for students to work on their own projects at the end of the semester, each student is expected to furnish his/her own hand tools for their project. There are not enough tools to furnish every student with the needed supplies.