

COURSE OUTLINE

Revision: S. Ford May 2008

DEPARTMENT:	Automotive Technology
CURRICULUM:	Auto Body Collision Repair
COURSE TITLE:	Damage Analysis
COURSE NUMBER:	ABR 161
TYPE OF COURSE:	Vocational Preparatory
COURSE LENGTH:	4 weeks
CREDIT HOURS:	5
LECTURE HOURS:	25
LAB HOURS:	75
CLASS SIZE:	20
PREREQUISITES:	ABR 111 (Introduction to Automotive Collision Technology), ABR 112 (Safety and Environmental Practices) and ABR 113 (Welding and Cutting), or instructors permission

COURSE DESCRIPTION:

This module instructs the student how a vehicle absorbs the forces of a collision through "crush zones". How damage travels from the point of impact through the body. What the two types of damage conditions are and how to identify them. Instruction in safety, environmental awareness, human relations and work ethics are taught as an integral part of this course of study.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Critical Thinking and Problem Solving - Critical thinking in evaluating information to determine what the damage conditions are and identify them.
2. Computation - Use arithmetic and other basic mathematical operations to determine amount of damage to vehicle.

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STUDENT LEARNING OUTCOMES ADDRESSED: (cont.)

3. Information Literacy - Access and evaluate information from technical manuals and unibody measuring equipment.
4. Personal Responsibility - Value one's own skills and abilities to correctly assess the amount of damage and location.

GENERAL COURSE OBJECTIVES:

At the end of the course the student will:

1. Correctly inspect a damaged vehicle and identify all the damage.
2. Interpret body dimension information and locate key reference points on a vehicle using a body dimension manual
3. Use the information provided to set up and use various types of measuring systems.
4. Demonstrate the use of a tram gauge to measure vehicle length and width damage.
5. Correctly inspect damage vehicle before repair, correctly measure and inspect after repair.
6. Select a set of datum line gauges to identify the two types of height damage and determine the amount and location of each.
7. Use a universal measuring systems to determine the types of collision damage.

TOPICAL OUTLINE:

APPROX. HOURS

I.	Analyze various types of vehicle damage	10
II.	Interpret body dimension specification sheets	10
III.	Select and set up various types of measuring systems used for damage analysis	20
IV.	Diagnose vehicle length and width damage with tram gauge	10
V.	Correctly inspect damage vehicle before repair Correctly measure and inspect after repair.	10
VI.	Diagnoses vehicle height damage with datum line gauges	10
VII.	Diagnose damage with universal measuring system	30
	Total	<u>100</u>

REVISED BY: Steve Ford
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