Course Information Form (CIF)

Course Code: ACR 130

Course Title: Collision Repair Vehicle Construction, Estimating, and Measuring Principles

Department: Applied Sciences and Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 47.0603
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 2-1-2
Credit Hour Distribution:

Lecture: 2	Lab: 1	Clinical: 0	**Total: 2**

General Course Information

Catalog Description

Overview of modern vehicle construction. Collision repair impact analysis. Discovery and reporting of hidden damage. Review of industry standard computer-based estimating systems. Introduction to structural measuring techniques and systems.

General Course Objectives

- Learn about unibody vehicles and how they relate to the repair process.
- Learn about collision repair estimation and creating a damage report.

Minimum Placement Levels

English	Reading	Math
Placement into ENG 098	Placement into CCS 098	Placement into MAT 059

Prerequisites

None

Methods of Evaluation

8 written assignments, 8 lab assignments, 1 midterm, 1 final exam, and 2 practical exams.

Instructional Materials and Additional Supplies

Auto Collision Repair and Refinishing, Michael Crandell

Course Content

General Learning Outcomes (GLOs)

- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Modern Vehicle Construction	1. Identify various types of body systems. 2. Identify components of a unibody. 3. Determine types of damage and failures in unibody systems. 4. Demonstrate the use of unibody and frame straightening equipment. 5. Identify components of a steel frame system. 6. Analyze collision damage to frame and unibody systems.	10	6	0
Damage Analysis and Measuring Systems	1. Analyze various types of vehicle damage. 2. Interpret body dimension specification sheets. 3. Select and set up various types of measuring systems used for damage analysis. 4. Examine center line misalignment with centering gauges. 5. Examine vehicle length and width damage with tram gauge. 6. Examine vehicle height damage with datum line gauges. 7. Examine damage with universal measuring system. 8. Examine damage with dedicated fixture system. 9. Examine damage with computerized measuring system. 10. Practice how to quickly and accurately discover and report hidden damage.	10	6	0
Cost Estimating, Damage Reporting, and Replanting	1. Recognize uses of the estimate in the collision repair business. 2. Identify vehicles by vehicle identification number (VIN). 3. Locate and describe direct and indirect damage. 4. Use a crash estimating guide. 5. Estimate labor times and material costs. 6. Apply knowledge of various types of computerized estimating systems. 7. Estimate labor times and material costs. 8. Create a computerized damage report and repair plan.	10	3	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	15	0