

Course Code: ACR 272

Course Title: Advanced Structural Repair

Department: Applied Sciences and Technologies

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 47.0603

Repeatability: 0

Credit Hours

Catalog Notation: 2-2-3

Credit Hour Distribution:

Lecture: 2

Lab: 2

Clinical: 0

Total: 3

General Course Information

Catalog Description

Diagnosis and repair of today's unique vehicle structures emphasizing hydroformed full-frame vehicles, space-frame structures, and aluminum unibody vehicles. Analysis of the vehicle center section. Strategy for making a three-point measurement with computerized measuring systems.

General Course Objectives

Students will reinforce and build upon their knowledge of structural designs and repair, making the repair process more efficient and effective.

Minimum Placement Levels

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

Prerequisites

Credit in ACR 133

Methods of Evaluation

The minimum evaluation tools to be used are: 3 tests, 4 quizzes, and 4 lab practicals.

Instructional Materials and Additional Supplies

Auto Collision Repair and Refinishing, Michael Crandall

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
Full Frame Anchoring	1. Identify and utilize specific anchoring points on today's body over frame vehicles.	4	3	0
Center Section and Three-point Measuring	1. Identify and repair center section damage by utilizing the three-point measuring system.	6	6	0
Space Frame Structure	1. Examine and repair structural damage on vehicles equipped with space frame construction.	6	7	0
Hydroformed Structure	1. Recognize, examine, and repair damage to hydroformed vehicle structures.	6	6	0
Aluminum Structure	1. Analyze and perform repairs on an aluminum unibody structure.	5	5	0
Squeeze Type Resistance Welds	1. Set up a modern resistance type spot welder to duplicate factory spot-welds.	3	3	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0