Course Information Form (CIF)

Course Code: ACR 295

Course Title: Advanced Vehicle Collision Avoidance Systems

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: 2-2-3
Credit Hour Distribution:

Lecture: 2	Lab: 2	Clinical: 0	**Total: 3**

General Course Information

Catalog Description

Advanced study of vehicle accident avoidance systems and autonomous vehicle operation. Emphasis on system levels of operation, theory of operation, programming, and calibration.

General Course Objectives

Students will be able to identify accident avoidance systems and components, identify operation errors and retrieve diagnostics codes, and program and calibrate systems.

Minimum Placement Levels

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

Prerequisites

Credit in ACR 273

Methods of Evaluation

2 exams, 8 lab worksheets, and 4 quizzes.

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
Advanced Driver Assistance System Operation	1. Identify system processors, inputs, outputs, and networks. 2. Calibrate sensors and program systems.	10	10	0
Autonomous Vehicle Systems	1. Identify autonomous vehicle levels of operation. 2. Inspect and repair radar input sensors. 3. Inspect, replace, and calibrate camera systems. 4. Identify common errors in collision repair practices that impact autonomous vehicle system operation.	10	10	0
Accident Avoidance Systems	1. Describe the operation of typical accident avoidance systems. 2. Identify the components of accident avoidance systems. 3. Identify the calibration needs for system components after replacement.	10	10	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0