



## CRT 1110

**Division:** Career and Technical Education

**Department:** Collision Repair and Refinishing Technology

**Course:** CRT 1110

**Title:** Surface Preparation

**Catalog Description:**

This course teaches students to prepare metal surfaces for painting by removing finishes and rust, sanding old finishes, applying fillers, and sanding treated areas. It also teaches to mask for, mix, and spray on primer surfaces. It covers block sanding, use of two part fillers, removal of wax and grease, blowout, and surface pre-cleaning. This course uses the Inter-Industry Conference on Auto Collision Repair (I-CAR) curriculum which will prepare students for Automotive Service Excellence (ASE) certification and includes lecture, labs, and demonstration exercises.

**General Education Requirements:** N/A

**Semesters Offered:** TBA

**Credit/Time Requirement:** Credit: 4; Lecture: 1; Lab: 7

**Clock/Hour Requirements:** 128

**Offered for Non-Credit:** No

**Prerequisites:** None

**Corequisites:** None

**Justification:**

The I-CAR curriculum is recognized as the leader in collision repair training. It also provides the necessary information to pass the ASE task lists and tests required for certification. This course was approved by the advisory committee and similar courses are taught at Utah Valley State College (CRT 1110) and Salt Lake Community College (ACR 1100).

**Student Learning Outcomes:**

Upon successful completion, students will be able to:

- remove detachable chrome, name plates, wiper arms, etc., and replace after painting
- locate all defective finish areas and remove defective finish by grinding/sand blasting
- featheredge scratches and chips
- paint so that featheredges show no rips, tears, or discernible tapering
- treat rusty metal arms with various products
- wet-sand painted areas with proper sanding grit while avoiding chrome and glass damage
- dry-sand painted areas.

**Content:**

Course objectives will be achieved by providing students with instructional and hands-on experiences in the following areas:

- hazard management
- vehicle pre-washed with detergent
- vehicle wax and grease removed
- all petroleum based residue removed
- feathering scratches and chips to satisfactory taper
- areas to be primed and masked (wheels, glass, chrome, plastic)
- applying tools to sheet metal
- selecting and applying correct primer filler and additives
- primer filler properly mixed and applied
- spot putty applied
- hand sanding (wet or dry) prepared area
- primed area blocked and sanded
- fine panel ridge lines restored
- vehicle blown out with all dust and water removed
- masking performed with no overlapped or underlapped edges
- final wax and grease solvent applied
- complete refinishing of vehicle.

**General Education Outcomes:**

5) Apply a cultural and historical awareness to a variety of phenomena.

In this course, students must understand the history of painting processes and the materials used. This understanding will allow students to make better decisions regarding repairs and restorations.

**Key Performance Indicators:****In class:**

- Student progress will be evaluated on skill levels demonstrated in lab (70%), quiz scores (10%), and a final comprehensive exam (20%).

**Following class:**

- Upon completion of the course, safety and competency will be demonstrated in subsequent courses and on custom projects.
- Students will apply the techniques acquired on the job and pass national ASE certification tests.

**Representative Text and/or Supplies:**

- James E. Duffy, *I-CAR student textbooks and modules*, current editions, Delmar Publishers.

**Optimum Class Size: 10**  
**Maximum Class Size: 20**

**Signatures:**

I hereby submit this course syllabus:

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Andy Morgan, ,

I hereby find this course consistent with the goals and resources of the Collision Repair and Refinishing Technology Department:

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Andy Morgan, , , Chair

I hereby find this course consistent with the goals and resources of the Career and Technical Education Division:

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Michael P. Medley, MBA, Assistant Professor, Dean

I have discussed the need for library resources related to this class with the person submitting the syllabus:

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Lynn Anderson, MLIS, Technical Services Librarian (Main Campus)

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Michelle Olsen, MLS, Campus Librarian (Richfield Campus)