

# COLLISION REPAIR/ REFINISHING (CRR)

## CRR-121 Introduction to Metalworking & Refinishing I (3)

Provides the beginning technician with an introduction to the collision repair industry. Introduces the student technician to shop, personal and environmental safety, and health issues related to automotive collision repair. Establishes procedures and techniques used in metalworking and refinishing, as well as shop equipment, hand and power tool usage. Arts & Sciences Elective Code: B

*Hours per week:* 1.0 lecture, 4.0 lab

## CRR-122 Introduction to Metalworking & Refinishing II (3)

Continues concepts learned in Introduction to Metalworking and Refinishing I. Covers metal straightening theory and procedures, body fillers and applications, surface preparation, application of undercoat and topcoat refinish materials, and accessing vehicle specific information.

Arts & Sciences Elective Code: B

*Hours per week:* 1.0 lecture, 4.0 lab

*Pre/corequisite:* Take CRR-121.

## CRR-342 Metalworking II (4)

Expands on previous material covered in Metalworking and Refinishing I. Reviews prior knowledge and procedures and emphasizes recycled part use, servicing movable and stationary glass and hardware, and noise vibration and harshness (NVH) materials. Introduces restraint systems, and identifying and servicing simple electrical system components.

Knowledge will be applied to repairing various projects and live vehicles.

Arts & Sciences Elective Code: B

*Hours per week:* 0.5 lecture, 7.0 lab

*Prerequisite:* Take CRR-820.

## CRR-344 Metalworking III (4)

Expands previous material covered in Metalworking and Refinishing I, and Metalworking II. Emphasizes diagnosing and documenting vehicle structural damage. Establishes use of frame straightening equipment to restore vehicle dimensions. Introduces structural measuring, advanced high-strength steels used in unitized structures, and replacing weld-on cosmetic and structural panels on various projects and live vehicles. Encourages improvement of speed and quality of repairs. Arts & Sciences Elective Code: B

*Hours per week:* 1.0 lecture, 6.0 lab

*Pre/corequisite:* Take CRR-342.

## CRR-545 Body Straightening/Painting and Restoration (7)

Introduces vehicle damage estimating and typical mechanical concerns related to repairing collision damage. Emphasizes increased work quality and speed in the lab setting, working on vehicle projects. Focuses on repairing minor vehicle damage from start to finish with minimal input from instructors. Provides practical application with an emphasis on industry standards of appearance, completion of work on time schedules, and material costs. Fine-tunes previously taught skills and sequences a repair plan while improving speed and work efficiency on a production basis. Students are given an opportunity to complete a project of their choice not to exceed two weeks in duration. Arts & Sciences Elective Code: B

*Hours per week:* 1.0 lecture, 12.0 lab

*Prerequisite:* Take CRR-344.

## CRR-820 Metalworking and Refinishing Practices (3)

Reviews knowledge gained in Intro to Metalworking & Refinishing I and II to various projects. Emphasizes using proper welding equipment and techniques, metal straightening theory, and restoring sheet metal upset. Focuses on selecting and applying the proper types of fillers, undercoat and topcoat materials. Covers surface preparation and refinish applications, paint application problems, and finish defects and cures.

Arts & Sciences Elective Code: B

*Hours per week:* 1.0 lecture, 4.0 lab

*Pre/corequisite:* Take CRR-121.

## CRR-830 Metalworking and Refinishing I (3)

Expands on previous material covered in Intro to Metalworking and Refinishing I and II, and Metalworking and Refinishing Practices. Reviews knowledge and procedures already learned with an emphasis on identifying vehicle clips, and fasteners, interior trim components and exterior bolt-on panel removal, and replacement and alignment procedures. Introduces plastic and composite repair and adhesive bonding. Demonstrates advanced masking and blendable paint match techniques. Emphasizes refinishing equipment maintenance. Applies knowledge to repairing of various components and live vehicles. Arts & Sciences Elective Code: B

*Hours per week:* 1.0 lecture, 4.0 lab

*Pre/corequisite:* Take CRR-122.

## CRR-833 Refinishing II (3)

Expands on previous material covered in Metalworking and Refinishing I. Emphasizes identifying and preparing plastic panels for refinishing, repairing and refinishing fiberglass surfaces, and mixing and applying flexible refinish materials. Introduces corrosion resistant material restoration, vehicle final detailing, and application of decals, appliques and stripes. Arts & Sciences Elective Code: B

*Hours per week:* 0.5 lecture, 5.0 lab

*Prerequisite:* Take CRR-830.

### **CRR-837 Refinishing III (3)**

Expands on previous material covered in Metalworking and Refinishing I, and Refinishing II. Emphasizes diagnosing and documenting vehicle finish damage. Introduces color theory, adjusting color, tinting and blending coatings, application of tri-stage paint systems, Waterborne paint systems, and mixing and application of custom refinish materials.

Arts & Sciences Elective Code: B

*Hours per week:* 1.0 lecture, 4.0 lab

*Pre/corequisite:* Take CRR-833.