

**Mission Valley Regional Occupation Program**  
**AUTO BODY PAINT AND REFINISHING 2**  
**COURSE OUTLINE**

**Course Title:**

Auto Body Paint and Refinishing 1

**CTE Career Sector and Pathway:**

Transportation Sector (TRA), 221 Systems Diagnostics, Service, and Repair

**CALPADS Number:**

8522

**Job Titles/DOT Codes:**

Automobile-Body Repair      807.381-010

Auto Body Repair              845.381-014

**COURSE DESCRIPTION:**

Students will be provided the opportunity to develop the skills required to be successful in the auto-body repair, painting and refinishing industry. They will develop the ability to identify and perform with materials, tools, and equipment at a high level of efficiency and safety; and to work harmoniously with others. Students will develop skills in welding, light auto-body repair work, prepping, painting, and finishing.

**HOURS:        360**

**PREREQUISITES:**

Passing Grade of C or above in Auto Body Paint & Refinishing 1.

**COURSE OUTLINE:**

***HOURS:***

**I.      Career Preparation Standards**

(Necessary skills for any occupation – [MVROP SLO #1](#))

**WORKPLACE BASIC SKILLS AND BEHAVIORS**

*(Hours integrated throughout)*

- a. Apply skills learned in class
- b. Analyze information and make decisions
- c. Communicate verbally and in writing
- d. Work independently and as a team member in a diverse workplace
- e. Work reliably, responsibly, and ethically

Date Revised:    Aug 3, 2023

Date Approved by Advisory:

## II. Career Technical Skills

(Occupational competencies – [MVROP SLO #2](#))

### a. Estimating Jobs

(10 hours)

- i. Perform assessment of damages
- ii. Estimate straightening time
- iii. Estimate paint time
- iv. Determine cost of materials
- v. Demonstrate and understand how to look up parts in a manual
- vi. Pass test

### b. Business Functions

(20 hours)

- i. Demonstrate an awareness of how a business operates
- ii. Recognize the functions of industry: management, operations, personnel, finance, distribution, and services

### c. Straightening & Alignment of Sheet Metal

(120 hours)

- i. Perform roughing-out metal
- ii. Perform aligning sheet metal
- iii. Understand stress and strain
- iv. Perform hammering-out dents
- v. Perform stud gun use
- vi. Understand shrinking metal
- vii. Perform grinding sheet metal
- viii. Perform filing sheet metal
- ix. Understand R & R and R & I of body panels
- x. Pass safety test

### d. Sheet-Molded Compounds & Other Plastics

(35 hours)

- i. Describe sheet-molded compounds
- ii. Describe usage on automobiles
- iii. Demonstrate use of ABS & other plastics
- iv. Explain identification of type
- v. Perform repair of SMC & other plastics
- vi. Perform prep for paint
- vii. Pass safety test

### e. Welding

(45 hours)

- i. Perform welding safety practices including precautions for electronic components
- ii. Demonstrate MIG use, spot, and stitch
- iii. Pass safety test

**f. Refinishing**

*(130 hours)*

- i. Explain H.V.L.P. spray equipment
- ii. Demonstrate preparation for paint
- iii. Understand identification of different types of paint
- iv. Understand V.O.C. review
- v. Understand mixing procedures for paint
- vi. Demonstrate matching colors
- vii. Demonstrate spot painting procedures
- viii. Demonstrate a complete paint job
- ix. Demonstrate two-stage painting
- x. Demonstrate color sanding & polishing
- xi. Pass safety test

**III. Career Path Strategies**

(Strategic planning for a career – [MVROP SLO #3](#))

**JOB EMPLOYMENT SKILLS**

*(Hours Integrated throughout)*

- a. Develop a plan to achieve career goals
- b. Use effective job search strategies
- c. Demonstrate an awareness of the importance of lifelong learning

***TOTAL COURSE APPROVED HOURS = 360***

**ADDITIONAL ITEMS:**

- a. **Articulation:** This course is not articulated with a college.
- b. **UC/CSU A-G Eligibility:** This course does not meet the UC/CSU A-G requirements.

**c. Instructional Strategies:**

- |                     |                 |
|---------------------|-----------------|
| ● Lecture           | ● Demonstration |
| ● Group Discussion  | ● Team Learning |
| ● Projects          | ● Simulation    |
| ● Hands-on Practice |                 |

**d. Instructional Materials:**

- *Auto Collision Repair and Refinishing*, 3rd Edition by Michael Crandell, Goodheart-Willcox, Publishing 2022

e. **Completion Certificate Competencies**

*\*Students will only earn a certificate if they pass the class with an 80% or higher.*

*Career Preparation Standards:*

- Demonstrate Workplace Basic Skills & Behaviors
- Select and Use Appropriate Repair Tools
- Use Effective Employability Strategies
- Practice Shop Safety
- Show Care for Shop Equipment
- Recognize Business Functions

*Career Technical Skills:*

- Perform Straightening & Alignment of Sheet Metal
- Demonstrate Preparing the Surface for Filler
- Demonstrate Auto Body Refinishing Process
- Demonstrate Two-Stage Painting
- Determine Job Estimate
- Perform Electric Welding Process
- Demonstrate Use of Sheet Molded Compounds & Other Plastics
- Demonstrate Mixing & Application of Body Filler
- Demonstrate Sanding & Buffing Procedure
- Perform Detailing Job