# Auto Refinishing I Course No. 40310 Credit: 1.0

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| **Student name:**  |  | **Graduation Date:** |  |

Pathways and CIP Codes: **Vehicle Maintenance and Repair (47.0600)**

Course Description: A comprehensive, **technical level** course designed to instruct students in the knowledge and skills common to the Auto Refinishing Industry.

Directions:The following competencies are required for full approval of this course. Check the appropriate number to indicate the level of competency reached for learner evaluation.

**RATING SCALE:**

4. Exemplary Achievement: Student possesses outstanding knowledge, skills or professional attitude.

3. Proficient Achievement:Student demonstrates good knowledge, skills or professional attitude. Requires limited supervision.

2. Limited Achievement:Student demonstrates fragmented knowledge, skills or professional attitude. Requires close supervision.

1. Inadequate Achievement:Student lacks knowledge, skills or professional attitude.

0. No Instruction/Training:Student has not received instruction or training in this area.

## Benchmark 1: Orientation to Refinishing Process

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 1.1 | Demonstrate basic understanding of the refinishing trade and use of terminology. |  |
| 1.2 | Identify and perform good safety practices in the shop, including safe & proper use and cleaning of tools and equipment. |  |
| 1.3 | Understand maintenance and limitations of ventilation and filtration as it pertains to shop environment and personal safety. |  |
| 1.4 | Demonstrate proper handling and disposal procedures of hazardous materials. |  |
| 1.5 | Demonstrate proficiency in safely using tools and equipment related to the refinishing trade, to include preventive maintenance procedures. |  |

## Benchmark 2: paint preparation

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 2.1 | Identify and describe refinishing materials and equipment. |  |
| 2.2 | Identify & describe surface preparation for refinishing (e.g. wax and grease removers; sanding). |  |
| 2.3 | Prepare surface for refinishing including using proper masking techniques. |  |
| 2.4 | Identify & demonstrate knowledge of masking (types of masking tape and paper). |  |
| 2.5 | Identify basic types of primers and their uses. |  |
| 2.6 | Apply primers, sealers, and topcoats. |  |
| 2.7 | Prepare surface for refinishing (wax and grease removers; metal conditioners; sanding). |  |
| 2.8 | Demonstrate masking skills (types of masking tapes and paper and their uses; apron; spray mask; pre-mask; reverse masking). |  |
| 2.9 | Demonstrate sand, buff, and polish procedures. |  |

## Benchmark 3: Spray Guns

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 3.1 | Identify types of spray guns and their purpose. |  |
| 3.2 | Identify parts and cleaning of spray guns. |  |

## Benchmark 4: Finish Applications

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 4.1 | Demonstrate knowledge of paint reduction. |  |
| 4.2 | Demonstrate gun spraying techniques. |  |
| 4.3 | Demonstrate application of primers and topcoats. |  |
| 4.4 | Demonstrate use of block and finish primers. |  |
| 4.5 | Perform color sanding. |  |

## Benchmark 5: Paint Defects – Causes and Cures

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 5.1 | Identify and analyze cause(s) of paint and primer defects. |  |
| 5.2 | Apply problem solving skills to resolve defects. |  |

## Benchmark 6: Detail

### Competencies

| **#** | **DESCRIPTION** | **RATING** |
| --- | --- | --- |
| 6.1 | Demonstrate proficiency in compound and polish procedures. |  |
| 6.2 | Clean interior and exterior surfaces and body openings. |  |
| 6.3 | Apply decals and striping. |  |
| 6.4 | Clean, inspect, and analyze work. |  |

## Benchmark 7: Primer

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 7.1 | Explain primers and their use in the industry. |  |
| 7.2 | Compare and contrast primer classifications (physical drying; chemical drying). |  |
| 7.3 | Evaluate types of primers (metal conditioners; self-etching primer; primer surface and sealer; sealers; polyester primer surface). |  |

## Benchmark 8: Spray Gun Operation

### Competencies

| **#** | **Description** | **RATING** |
| --- | --- | --- |
| 8.1 | Describe the mechanical operation and atomization. |  |
| 8.2 | Describe parts and functions. |  |
| 8.3 | Distinguish types of spray guns and their uses (siphon feed and gravity feed). |  |
| 8.4 | Demonstrate spray patterns. |  |
| 8.5 | Recognize and analyze spray problem. |  |
| 8.6 | Demonstrate proficiency in spray gun cleaning and preventive maintenance. |  |

## Benchmark 9: Paint Components Knowledge

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 9.1 | Discuss pigment. |  |
| 9.2 | Discuss binders/resins, solvents/volatiles. |  |
| 9.3 | Discuss use of additives. |  |
| 9.4 | Discuss solids content. |  |

## Benchmark 10: Paint and Primer Application

### Competencies

| **#** | **Description** | **rating** |
| --- | --- | --- |
| 10.1 | Demonstrate proficiency in paint reduction. |  |
| 10.2 | Demonstrate proficiency in measuring paint reduction (percentages; mixing cup types; mixing sticks). |  |
| 10.3 | Discuss use of air pressure in paint application processes. |  |
| 10.4 | Safely use compressors and air filtration in finish applications. |  |

## Benchmark 11: Basic Color Principles

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 11.1 | Discuss the theory of light as it pertains to paint. |  |
| 11.2 | Differentiate primary, secondary, intermediate, tertiary, and colors. |  |
| 11.3 | Explain color mixing. |  |

## Benchmark 12: General Spraying Techniques

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 12.1 | Demonstrate knowledge of gun distance, angle, and speed. |  |
| 12.2 | Demonstrate knowledge of triggering. |  |
| 12.3 | Demonstrate overlap procedures Identify gun control problems and causes, and select appropriate solutions. |  |

## Benchmark 13: Application

### Competencies

| **#** | **Description** | **Rating** |
| --- | --- | --- |
| 13.1 | Apply primers, topcoats, and blends. |  |
| 13.2 | Apply block and finish primers. |  |
| 13.3 | Apply multi-state coating. |  |
| 13.4 | Demonstrate proper procedures for color sanding. |  |

I certify that the student has received training in the areas indicated.

Instructor Signature:

For more information, contact:

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