



# **AUTOMOTIVE COLLISION REPAIR REFINISHING & PAINTING**

A course that prepares individuals to repair automotive, uni-bodies, fenders, and frames of automobiles. Includes instruction in non-structural and structural repairs. This course is based on the Automotive Service Excellence (ASE) automotive collision task list and the I-CAR training program. Work ethics and productivity are an integral part of the classroom and laboratory activities of this program.

**Utah State Office of Education**  
**7/15/2008**

# COLLISION REFINISHING & PAINTING

Levels:	Grades 11-12
Units of Credit:	1.0
CIP Code:	47.0623
11 Digit Code:	40-09-00-00-015
11 Digit CE Code:	40-09-00-13-015
Test #:	
License:	CTE/Secondary
Endorsement:	Automotive Collision Repair
Prerequisite:	Non-Structural/Structural Repair

## CORE STANDARDS, OBJECTIVES AND INDICATORS

**STANDARD  
470623-01**      **Students will be able to understand and demonstrate safety and environmental practices.**

### **OBJECTIVES**

- 470623-0101      Explain the need for regulations and safety devices such as EPA, state and local environmental laws, and regulations involved with the refinishing department. (4A1)
- 470623-0102      Locate hazardous warning information for products used in refinishing (MSDS). (4A2)
- 470623-0103      Select the proper personal protection equipment, inspect it, and demonstrate its proper use. (4A3)
- 470623-0104      Identify the VOC content of paint products and explain the environmental concerns. (4A4)

**STANDARD  
470101-02**      **Students will be able to understand automotive finishes.**

### **OBJECTIVES**

- 470623-0201      Identify and distinguish between a variety of types of automotive finishes. (4B1)
- 470623-0202      Select the proper finish for repairs and understand why certain repair finish systems and system parts are used. (4B2)

**STANDARD  
470623-03**      **Students will be able to understand and demonstrate preparing the surface for refinishing.**

### **OBJECTIVES**

- 470623-0301      Identify the type and color of a finish, and plan a system for refinishing a vehicle. (4C1)
- 470623-0302      Remove old paint from a vehicle using a variety of methods. (4C2)

- 470623-0303 Understand the importance of corrosion protection, the materials used in corrosion protection, and how to clean and treat the metal in the repair area before refinishing. (4C3)
- 470623-0304 Select and apply the proper undercoat materials. (4C4)
- 470623-0305 Select sanding materials and equipment and know how to sand a vehicle prior to and during the refinishing process. (4C5)
- 470623-0306 Prepare adjacent panels for blending. (4C6)
- 470623-0307 Select and apply the proper sealer to be used on various vehicle seams and joints. (4C7)
- 470623-0308 Determine where chip-resistant coatings have been used by the vehicle manufacturer, and reapply similar coatings to new or repaired parts. (4C8)
- 470623-0309 Mask a vehicle for spot repairs, panel repairs, or a complete refinish job using a variety of masking materials. (4C9)

**STANDARD  
470623-04** **Students will be able to understand and demonstrate the application of a finish.**

**OBJECTIVES**

- 470623-0401 Properly identify and prepare the surface for top coat application. (4F1)
- 470623-0402 Understand different types of undercoats and how to apply them. (4F2)
- 470623-0403 Apply both single-stage solid and metallic color finishes. (4F3)
- 470623-0404 Apply both base coat/clear coat solid and metallic color finishes. (4F4)

**STANDARD  
470623-05** **Students will be able to understand and demonstrate detailing.**

**OBJECTIVES**

- 470623-0501 Describe the processes and importance of proper detailing, remove overspray and perform final finishing processes, including compounding and polishing, to improve the quality of the finish. (4J1)
- 470623-0502 Understand the importance of thoroughly cleaning the vehicle before and after repairs; select and use proper cleaning products and tools to clean the vehicle exterior, including the engine compartment, tires and wheels, and vinyl tops. (4J2)
- 470623-0503 Describe the various equipment and products used in interior detailing; detail the interior of a vehicle, including cleaning and conditioning of the carpet, upholstery, vinyl, plastic, and leather; remove stains and odors; and clean glass. (4J3)
- 470623-0504 Remove and install pinstripes, decals, and emblems; select and use the proper tools and equipment for these procedures. (4J4)

**STANDARD  
470623-06** **Students will be able to understand and demonstrate analyzing damage.**

## **OBJECTIVES**

- 470623-0601 Describe the function and importance of damage reports and general business aspects in the collision repair industry. (5A1)
- 470623-0602 Use a vehicle identification number and an information source to fully identify a vehicle. (5A2)
- 470623-0603 Explain collision energy management and identify different types of damage. (5A3)
- 470623-0604 Identify and describe a general plan for repairs on a collision damage. (5A4)
- 470623-0605 Explain the importance of planning, describe a sequence for damage analysis, and identify common industry parts names and repair terms. (5A5)
- 470623-0606 Recognize damage to various mechanical systems of the vehicle. (5A6)
- 470623-0607 Understand flat rate as it applies to collision repair. (5A7)

## **PROFESSIONAL DEVELOPMENT**

**STANDARD**      **The student will understand the need for professional development.**  
**470623-07**

### **OBJECTIVES**

- 470623-0701 Complete a personal inventory.
- 470623-0702 Set and meet goals.
- 470623-0703 Be self-motivated.
- 470623-0704 Know how to make decisions.
- 470623-0705 Know how to manage time.
- 470623-0706 Organize personal belongings and lab equipment.
- 470623-0707 Learn to communicate verbally.
- 470623-0708 Write effective communications.
- 470623-0709 Establish a personal reading program.
- 470623-0710 Develop effective work skills and attitudes.
- 470623-0711\* Master a working knowledge of SkillsUSA.
- Learn the acronym SkillsUSA.
  - State the SkillsUSA motto.
  - State the SkillsUSA creed.
  - Learn the SkillsUSA colors.
  - Describe the official SkillsUSA dress.
  - Describe the procedure for becoming a SkillsUSA officer.

**STANDARD**      **The student will understand the need for leadership skills.**  
**470623-08**

### **OBJECTIVES**

- 470623-0801 Serve on a committee.

- 470623-0802 Prepare an agenda.
- 470623-0803 Assist in planning a meeting.
- 470623-0804 Review basic parliamentary procedure.
  - Make a main motion.
- 470623-0805 Participate in a school project.
- 470623-0806 Attend a community meeting.
- 470623-0807 Practice effective speaking.
- 470623-0808 Present a three- to five-minute talk.
- 470623-0809 Implement a leadership project.
- 470623-0810\* Master a working knowledge of SkillsUSA.
  - Describe the meaning of the SkillsUSA emblem.
  - State the SkillsUSA pledge.
  - Describe the duties of a SkillsUSA officer.

**STANDARD**                    **The student will understand the need for career planning.**  
**470623-09**

**OBJECTIVES**

- 470623-0901 Define your future occupation.
- 470623-0902 Survey employment opportunities.
- 470623-0903 Report on a trade journal article.
- 470623-0904 Explore opportunities for advanced training.
- 470623-0905 Conduct a worker interview.
- 470623-0906 Contact a professional association.
- 470623-0907 Explore entrepreneurship opportunities.
- 470623-0908 Give a talk about your career.
- 470623-0909 Review career goals.

**STANDARD**                    **The student will understand the importance of employability and**  
**470623-10**                    **work habits.**

**OBJECTIVES**

- 470623-1001 Develop a list of work standards to follow at school and on the job.
- 470623-1002 Evaluate your personal ethics.
  - Evaluate your personal ethics against acceptable workplace ethics.
- 470623-1003 Build a job search network.
- 470623-1004 Find job leads.
- 470623-1005 Write a resume.
- 470623-1006 Create a job portfolio.
- 470623-1007 Complete a job application.
- 470623-1008 Write a business letter and memo.
- 470623-1009 Participate in an actual or simulated job interview.

\* SkillsUSA PDP requirements - optional but recommended