



*Department of Teaching & Learning*  
*Parent/Student Course Information*

*Auto Body and Paint Technology II*  
*(VO8677)*  
*Three Credits, One Year*  
*Grades 11 or 12*

*Counselors are available to assist parents and students with course selections and career planning. Parents may arrange to meet with the counselor by calling the school's guidance department.*

**COURSE DESCRIPTION**

This two-year program covers all aspects of auto body repair from estimating to a complete paint job. Students learn to analyze different types of body damage and to restore vehicles to their original appearance. Students will be taught to weld, straighten a frame, repair fiberglass, use plastic filler, complete hand and power sanding, spray paint and replace damaged glass. Students also are trained to custom mix paint.

**CERTIFICATION**

National Occupational Competency Testing Institute: Collision Repair/Refinishing Technology  
Automotive Service Excellence: Non-Structural Analysis/Damage Repair Certification  
Environmental Protection Agency (EPA): Safety and Pollution Prevention Certification

**STUDENT ORGANIZATION**

SkillsUSA is a co-curricular organization for all students enrolled in trade and industrial education programs. SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce. SkillsUSA helps students excel by providing educational programs, events and competitions that support career and technical education (CTE) in the nation's classrooms. Students are highly encouraged to participate.

**PREREQUISITE**

Auto Body and Paint Technology I

**OPTIONS FOR NEXT COURSE**

None

**REQUIRED STUDENT TEXTBOOK**

None

## COMPETENCIES FOR AUTO BODY AND PAINT TECHNOLOGY II

### **Demonstrating Workplace Readiness Skills: Personal Qualities and People Skills**

- 1 Demonstrate positive work ethic.
- 2 Demonstrate integrity.
- 3 Demonstrate teamwork skills.
- 4 Demonstrate self-representation skills.
- 5 Demonstrate diversity awareness.
- 6 Demonstrate conflict-resolution skills.
- 7 Demonstrate creativity and resourcefulness.

### **Demonstrating Workplace Readiness Skills: Professional Knowledge and Skills**

- 8 Demonstrate effective speaking and listening skills.
- 9 Demonstrate effective reading and writing skills.
- 10 Demonstrate critical-thinking and problem-solving skills.
- 11 Demonstrate healthy behaviors and safety skills.
- 12 Demonstrate an understanding of workplace organizations, systems and climates.
- 13 Demonstrate lifelong-learning skills.
- 14 Demonstrate job-acquisition and advancement skills.
- 15 Demonstrate time-, task- and resource-management skills.
- 16 Demonstrate job-specific mathematics skills.
- 17 Demonstrate customer-service skills.

### **Demonstrating Workplace Readiness Skills: Technology Knowledge and Skills**

- 18 Demonstrate proficiency with technologies common to a specific occupation.
- 19 Demonstrate information technology skills.
- 20 Demonstrate an understanding of Internet use and security issues.
- 21 Demonstrate telecommunications skills.

### **Examining All Aspects of an Industry**

- 22 Examine aspects of planning within an industry/organization.
- 23 Examine aspects of management within an industry/organization.
- 24 Examine aspects of financial responsibility within an industry/organization.
- 25 Examine technical and production skills required of workers within an industry/organization.
- 26 Examine principles of technology that underlie an industry/organization.
- 27 Examine labor issues related to an industry/organization.
- 28 Examine community issues related to an industry/organization.
- 29 Examine health, safety and environmental issues related to an industry/organization.

### **Addressing Elements of Student Life**

- 30 Identify the purposes and goals of the student organization.
- 31 Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult.
- 32 Demonstrate leadership skills through participation in student organization activities, such as meetings, programs and projects.
- 33 Identify Internet safety issues and procedures for complying with acceptable use standards.

### **Practicing Safety**

- 34 Demonstrate precautions with hazardous operations and materials according to federal, state and local regulations.

- 35 Identify personal health hazards and related safety measures, according to OSHA guidelines and the right-to-know laws.
- 36 Inspect spray environment.
- 37 Use the NIOSH-approved personal sanding respirator.
- 38 Use the NIOSH-approved personal painting/refinishing respirator system.
- 39 Use personal safety equipment.

### **Preparing the Surface**

- 40 Remove and replace exterior trim and molding.
- 41 Wash entire vehicle.
- 42 Identify substrate, type of finish, surface condition and film thickness.
- 43 Remove paint finish.
- 44 Dry- or wet-sand areas to be refinished.
- 45 Featheredge broken areas to be refinished.
- 46 Apply metal treatment or primer.
- 47 Mask trim and protect other areas that will not be refinished.
- 48 Mix undercoats.
- 49 Apply undercoat on surface of repaired area.
- 50 Apply two-component finishing filler to minor surface imperfections.
- 51 Dry- or wet-sand area to which primer-surfacer has been applied.
- 52 Dry-sand area to which two-component finishing filler has been applied.
- 53 Remove dust from area to be refinished.
- 54 Clean area to be refinished, using a final cleaning solution.
- 55 Apply stone chip-resistant coating.
- 56 Scuff-sand to remove nibs or imperfections from a sealer.
- 57 Prepare adjacent panels for blending and overall refinishing.
- 58 Identify the types of rigid, semi-rigid or flexible composite materials to be refinished.
- 59 Identify aluminum parts to be refinished.

### **Operating Spray Gun and Related Equipment**

- 60 Clean spray guns and related equipment (air hoses, regulators, air lines, air source, spray environment).
- 61 Set up compliant spray gun, using fluid, air and pattern control valves.

### **Mixing, Matching, and Applying Paint**

- 62 Determine type and color of paint already on vehicle.
- 63 Prepare paint for application.
- 64 Apply the finish, using spray techniques.
- 65 Apply selected product on test let-down panel.
- 66 Explain the application of single-stage topcoat for refinishing.
- 67 Apply basecoat/clearcoat for refinishing and blending.
- 68 Denib, buff, and polish finishes.
- 69 Refinish rigid, semi-rigid and flexible composite parts.
- 70 Apply multi-stage (tri-coat) coats for blending or overall refinishing.
- 71 Explain how to mix paint, using a formula.
- 72 Tint color, using formula, to achieve a blendable match.
- 73 Research alternative color formula to achieve a blendable match.

### **Identifying Paint Defects--Causes and Cures**

- 74 Identify paint defects and their causes.
- 75 Identify paint-defect cures and corrections.
- 76 Correct pin-holing.

77 Correct buffing-related imperfections (swirl marks and wheel burns).

### **Applying Final Detailing**

78 Apply decals, transfers, tapes, and pinstripes (painted and taped).

79 Clean interior, exterior and glass.

80 Clean body openings (doorjambs and edges).

81 Remove overspray.

### **Preparing for a Career in Auto Body Repair**

82 Research opportunities in the auto body repair field.

83 Prepare/update portfolio of current skills.

84 Identify additional ASE (Automotive Service Excellence) and other industry-recognized areas of certification.

85 Create a written estimate of repairs.

### **Local Competencies**

#### **Using Metal Finishing and Body Filling**

86 Remove paint from the damaged area of a body panel.

87 Locate and reduce surface irregularities on a damaged body panel.

88 Demonstrate hammer and dolly techniques.

89 Mix body filler.

90 Apply body filler, and shape during curing.

91 Rough- and finish-sand cured body filler to contour.

#### **Working with Plastics and Adhesives**

92 Identify the types of plastics and potential for repair.

93 Identify the types of plastic repair procedures.

94 Replace or repair rigid, semi-rigid and flexible plastic panels.

95 Remove or repair damaged areas from rigid exterior composite panels.

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