Course Acronym:	ACRP
Course Number:	5B
Descriptive Title:	Beginning Automotive Painting II
Division:	Industry and Technology
Department:	Automotive Collision Repair/Painting
Course Disciplines:	Automotive Technology
Catalog Description:	This course provides instruction in vehicle disassembly for refinishing, surface preparation of unpainted surfaces, specialty undercoats and corrosion protection, plastics refinishing, and painting parts and complete cars. This course contains Inter-Industry Conference on Auto Collision Repair (I-CAR) Professional Development Program curriculum.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	
Hours Lecture (per week):	2
Hours Laboratory (per week):	7
Outside Study Hours:	4
Total Course Hours:	162
Course Units:	4
Grading Method:	Letter Grade only
Credit Status:	Credit, degree applicable
Transfer CSU:	Yes
Effective Date:	3/18/2016
Transfer UC:	No
Effective Date:	
General Education: ECC	
Term:	
Other:	
CSU GE:	
Term:	
Other:	

IGETC:	
Term:	
Other:	
Student Learning Outcomes:	**SLO #1 Surface Prep** Students will be able to differentiate between and use the correct materials and techniques for preparing steel, aluminum, fiberglass, plastic, e-coat and existing paint for refinishing. **SLO #2 Parts Painting** Students will be able to clean a vehicle part or parts, mix paint according to the correct ratio and quantity needed, adjust their spray gun, and refinish the parts using locally compliant basecoat/clearcoat paints. **SLO #3 Corrosion Protection** Students will be able to identify surfaces and situations that require the application of corrosion protection on a vehicle. Students will also be able to analyze a surface and determine what kind of corrosion protection would best suit the vehicle.
Course Objectives:	1. Complete a comprehensive automotive collision repair/painting safety test with 100% accuracy. 2. Disassemble and reassemble a vehicle for refinishing. Parts to remove include bumper covers, headlights and tail lights, fenders, door panels, door handles, mirrors, moldings and emblems. 3. Prepare bare steel, aluminum, fiberglass/composite and plastic surfaces for primer. Prepare an e-coated part for refinishing. 4. Compare and contrast the function and usage of specialty undercoats including: metal prep, etching primer, waterborne primer, adhesion promoter, and tinted sealers. 5. Identify basecoat colors as solids, metallics, pearls or tri-coats using visual identification, vehicle color codes and printed/computer data sources. 6. Identify a vehicle's color code and mix a given quantity of basecoat color for the vehicle using a computer database, mixing formula and paint toners. 7. Prepare and refinish a new or minimally damaged plastic bumper cover using the correct undercoat/sealer, basecoat color and clearcoat. Use multiple spraying techniques to achieve a glossy finish over the entire surface.
Major Topics:	**I. PERSONAL SAFETY AND SAFE LAB PRACTICES (4 hours, lecture)** A. Shop tour B. General safety practices and personal safety equipment **II. VEHICLE DISASSEMBLY AND REASSEMBLY (8 hours, lecture)** A. Safety practices B. Customer service considerations and technician responsibilities C. 'Bag and Tag' procedure D. Removal and installation of plastic clips, rivets and double-sided tape E. Removal and installation of fenders, bumper covers, headlights, tail lights and related parts

F. Removal and installation of door panels, mirrors, exterior

III. VEHICLE DISASSEMBLY AND REASSEMBLY (28 hours, lab)

A. Safety practices
B. Customer service considerations and technician responsibilities
C. 'Bag and Tag' procedure
D. Removal and installation of plastic clips, rivets and double-sided tape
E. Removal and installation of fenders, bumper covers, headlights, tail lights and related parts
F. Removal and installation of door panels, mirrors, exterior door handles and moldings

IV. SURFACE PREPARATION FOR BARE SUBSTRATES (8 hours, lecture)

A. Safety practices
B. Tools, abrasives and chemicals
C. Procedures and techniques to prepare the following substrates for primer/refinishing:
    1. Bare steel
    2. Bare aluminum
    3. Bare fiberglass/composites
    4. Electro-deposition primed (E-coated) parts
    5. Bare plastic
D. [National Automotive Technicians Education Foundation (NATEF) Painting and Refinishing tasks: Section B, numbers 23, 24]

V. SURFACE PREPARATION FOR BARE SUBSTRATES (28 hours, lab)

A. Safety practices
B. Tools, abrasives and chemicals
C. Procedures and techniques to prepare the following substrates for primer/refinishing:
    1. Bare steel
    2. Bare aluminum
    3. Bare fiberglass/composites
    4. Electro-deposition primed (E-coated) parts
    5. Bare plastic
D. (NATEF Painting and Refinishing tasks: Section B, numbers 23, 24)

VI. SPECIALTY UNDERCOATS (8 hours, lecture)

A. Safety practices
B. Usage and application of the following undercoats:
    1. Spray-in sound deadener/undercoat
    2. Metal prep/cold galvanizing wash
    3. Seam sealer
    4. Etching primer
    5. Epoxy primer
    6. Waterborne primer
    7. Adhesion promoter
    8. Tinted sealers

	C. (NATEF Painting and Refinishing tasks: Section B, numbers 10, 18-21) VII. SPECIALTY UNDERCOATS (14 hours, lab) A. Safety practices B. Usage and application of the following undercoats: 1. Spray-in sound deadener/undercoat 2. Metal prep/cold galvanizing wash 3. Seam sealer 4. Etching primer 5. Epoxy primer 6. Waterborne primer 7. Adhesion promoter 8. Tinted sealers C. (NATEF Painting and Refinishing tasks: Section B, numbers 10, 18-21) **VIII. PAINTS AND CLEARS (8 hours, lecture)** A. Safety practices B. Basecoat types: solid, metallic, pearl, tri-coat C. Basecoat types: solvent based, waterborne, water base D. Vehicle color codes and reference books E. Accessing color formulas online, choosing quantities and printing formula labels F. Mixing color formulas using a toner rack G. Spraying basecoats for coverage and metallic/pearl alignment H. Clearcoat mixing and spraying **IX. PAINTS AND CLEARS (28 hours, lab)** A. Safety practices B. Basecoat types: solid, metallic, pearl, tri-coat C. Basecoat types: solvent based, waterborne, water base D. Vehicle color codes and reference books E. Accessing color formulas online, choosing quantities and printing formula labels F. Mixing color formulas using a toner rack G. Spraying basecoats for coverage and metallic/pearl alignment H. Clearcoat mixing and spraying **X. PAINTING PARTS AND CARS (28 hours, lab)** A. Safety practices B. Cleaning: solvent based, water based, tack rag C. Spray pattern, overlap, finding a 'path' to refinish a whole car D. Special techniques for three-dimensional objects such as bumper covers E. (NATEF Painting and Refinishing tasks: Section D, numbers 9, 10)
Total Lecture Hours:	36

Total Laboratory Hours:	126
Total Hours:	162
Primary Method of Evaluation:	3) Skills demonstration
Typical Assignment Using Primary Method of Evaluation:	Identify a vehicle's color code and calculate how much basecoat will be needed for a given panel. Mix the quantity of basecoat color for the vehicle using a computer database, mixing formula and paint toners.
Critical Thinking Assignment 1:	In a one-page report, compare and contrast the function and usage of specialty undercoats including: metal prep, etching primer, waterborne primer, adhesion promoter, and tinted sealers.
Critical Thinking Assignment 2:	Prepare and refinish minimally damaged plastic bumper cover using the correct undercoat/sealer, basecoat color and clearcoat. Begin by analyzing the job for surface condition, color difficulty and weather conditions. Use multiple spraying techniques to achieve a glossy finish over the entire surface.
Other Evaluation Methods:	Class Performance, Completion, Embedded Questions, Homework Problems, Multiple Choice, Objective Exam, Performance Exams, Quizzes, Written Homework
Instructional Methods:	Demonstration, Discussion, Group Activities, Guest Speakers, Lab, Lecture
If other:	
Work Outside of Class:	Answer questions, Observation of or participation in an activity related to course content (such as theatre event, museum, concert, debate, meeting), Required reading, Study
If Other:	
Up-To-Date Representative Textbooks:	Joe Baker. Auto Collision Repair and Refinishing. 4th ed. The Goodheart-Willcox Company, Inc., 2025.
Alternative Textbooks:	
Required Supplementary Readings:	
Other Required Materials:	Safety glasses Ear plugs/hearing protection Dust mask Paint respirator Rubber gloves
Requisite:	
Category:	
Requisite course(s): List both prerequisites and corequisites in this box.	
Requisite and Matching skill(s): Bold the requisite skill. List	

the corresponding course objective under each skill(s).	
Requisite Skill:	
Requisite Skill and Matching Skill(s): Bold the requisite skill(s). If applicable	
Requisite course:	
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Enrollment Limitations and Category:	
Enrollment Limitations Impact:	
Course Created by:	Patricia Fairchild
Date:	10/23/2012
Original Board Approval Date:	03/18/2013
Last Reviewed and/or Revised by:	Patricia Fairchild
Date:	10/28/2025
Last Board Approval Date:	01/21/2026 eff FA 2026