

**COURSE OUTLINE**

**Course:** 72300 AUTO COLLISION & REPAIR

**Total Course Hours:** 720.00

**CBEDS Title:** AUTOMOTIVE BODY REPAIR & REFRESHING COMBINATION

**CBEDS #:** 5654

**Job Title(s):**

Collision repair technician, collision repair helper, painter, painter's helper, parts manager, detailer, shop porter, courtesy driv

**Prerequisites:**

**Course Description:**

This course provides students hands on training and experience in collision repair. Instruction is provided in welding, metal straightening, estimating, forming, grinding, plastic filler application, sanding, buffing, and painting of automobile bodies. Masking, glass removal/installation, detailing and final preparation work are also included. Integrated throughout the course are Academic and CTE standards, which include safety, communication, technology, ethics, career planning and other employability skills.

Hours	
Class	OJT

**Occupational Competencies**

1-7 on the Course Outline are generic to all BVROP courses and include the BVROP Student Outcomes

3.00	3.00
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**1 ORIENTATION**

- A Identifies and discusses course objectives and competencies.
- B Discusses ROP Student Outcomes.
- C Explains class attendance and behavior objectives.

3.00	3.00
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**2 HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT**

- A Describes accident procedure.
- B Demonstrates appropriate safety practices (e.g. bending, lifting, etc.).
- C Demonstrates knowledge of classroom procedures and drills (e.g. earthquake, fire and emergency).
- D Passes written test 100% correctly.
- E Explains emergency procedures.
- F Demonstrates use of air compressor and air transformer.
- G Explains proper use of respirators.
- H Discusses hazardous waste requirements and how to handle, store and dispose of hazardous waste.

3.00	3.00
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**3 ETHICS AND LEGAL RESPONSIBILITIES**

- A Defines sexual harassment and discusses tactics for handling harassment situations.
- B Applies appropriate workplace behavior and standards.
- C Discusses and has knowledge of OSHA standards.
- D Explains record keeping for SCAQMD Rule 1151 (Southern California Air Quality Mgmt. Dist.)

3.00	3.00
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**4 LEADERSHIP AND TEAMWORK**

- A Describes the characteristics and benefits of teamwork and leadership.
- B Demonstrates ability to make appropriate decisions.
- C Works well with others and gives/takes constructive criticism.
- D Displays appropriate professional behavior via initiative, creativity, self control, interest/enthusiasm.
- E Demonstrates leadership skills by working independently, making appropriate decisions, working well with others and taking constructive criticism appropriately.

Hours	
Class	OJT

- |       |       |    |                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------|-------|----|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 15.00 | 15.00 | 5  | <b><u>CAREER PLANNING</u></b>              | <ul style="list-style-type: none"> <li>A Prepares a finished, professional portfolio showing the best work that has been completed during the class.</li> <li>B Locates job opportunities through the use of want-ads and placement agencies.</li> <li>C Visits at least one facility related to area of training and observes jobs performed.</li> <li>D Completes a job application correctly.</li> <li>E Prepares for and critiques a simulated employment interview.</li> <li>F Discusses employee benefits and rights as related to the specific occupational job area including gender equity and equal opportunity.</li> <li>G Identifies acceptable procedures to leave a job.</li> <li>H Applies for a scholarship.</li> <li>I Completes a professional resume.</li> <li>J Demonstrates appropriate personal grooming and dress.</li> </ul> |
| 3.00  | 3.00  | 6  | <b><u>COMMUNICATION</u></b>                | <ul style="list-style-type: none"> <li>A Uses effective workplace conversation.</li> <li>B Reads and interprets written information and directions.</li> <li>C Practices various forms of written communication appropriate to the occupation.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 5.00  | 5.00  | 7  | <b><u>STUDENT OUTCOMES</u></b>             | <ul style="list-style-type: none"> <li>A Demonstrates Occupational Specific, Communication and Critical Thinking Skills</li> <li>B Demonstrates Responsible Work Ethics</li> <li>C Demonstrates Career/Employment Literacy</li> <li>D Demonstrates Effective Use of Technology</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 35.00 | 10.00 | 8  | <b><u>WELDING A (OXYGEN-ACETYLENE)</u></b> | <ul style="list-style-type: none"> <li>A Demonstrates ignition, adjusting and shut down torch</li> <li>B Demonstrates safety procedures</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 35.00 | 10.00 | 9  | <b><u>WELDING B (MIG)</u></b>              | <ul style="list-style-type: none"> <li>A Demonstrates safety procedures</li> <li>B Demonstrates welder component identification set-up</li> <li>C Demonstrates metal preparation</li> <li>D Demonstrates individual use and set Amperage selection</li> <li>E Demonstrates cleaning and care of equipment</li> <li>F Practical demonstration</li> <li>G Demonstrates wire sizes and correct use</li> <li>H Demonstrate correct use of hand tools to a peer</li> <li>I Demonstrates corrosion protection</li> </ul>                                                                                                                                                                                                                                                                                                                                   |
| 35.00 | 10.00 | 10 | <b><u>WELDING "C" (TIG)</u></b>            | <ul style="list-style-type: none"> <li>A Demonstrates use of tungsten and correct use</li> <li>B Demonstrate correct use of hand tools to a peer</li> <li>C Demonstrates spot welding</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 40.00 | 10.00 | 11 | <b><u>HAND TOOLS</u></b>                   | <ul style="list-style-type: none"> <li>A Gives a practical demonstration of hammer use</li> <li>B Demonstrates dollies uses</li> <li>C Demonstrates use of pry bars and surface spoon</li> <li>D Demonsrates correct use of hand tools to a peer</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 40.00 | 10.00 | 12 | <b><u>POWER SANDERS</u></b>                | <ul style="list-style-type: none"> <li>A Demonstrates disc sanders and applications</li> <li>B Demonstrates use of Orbital Longboard</li> <li>C Demonstrates dual action use</li> <li>D Demonstrates procedures for safe use of power sanders</li> <li>E Demonstrates correct use of a power sander to a peer</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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35.00	10.00	<b>13 <u>SANDING PROCEDURES</u></b> <b>A</b> Identifies abrasives and correct use <b>B</b> Demonstrates hand sanding techniques <b>C</b> Demonstrates block sanding techniques <b>D</b> Demonstrates guide coat procedures
35.00	10.00	<b>14 <u>METAL FINISH</u></b> <b>A</b> Demonstrates techniques to rough out damaged area <b>B</b> Demonstrates dolly application <b>C</b> Demonstrates correct metal finish techniques to a peer <b>D</b> Demonstrates use of studgun <b>E</b> Demonstrates use of Lenco Puller
35.00	10.00	<b>15 <u>PLASTIC FILLER REPAIRS</u></b> <b>A</b> Demonstrates when and where to use plastic filler <b>B</b> Demonstrates how to properly use plastic filler <b>C</b> Demonstrates catalyst application <b>D</b> Demonstrates proper plastic application <b>E</b> Demonstrates proper techniques to clean up tools <b>F</b> Demonstrates finishing of materials after hardening <b>G</b> Demonstrates correct procedures for applying plastic fillers to a peer
30.00	10.00	<b>16 <u>THE SPRAY GUN</u></b> <b>A</b> Identifies parts of the spray gun <b>B</b> Demonstrates care and cleaning of the spraying equipment <b>C</b> Explains painting safety <b>D</b> Demonstrates spray pattern controls <b>E</b> Properly mixes primer <b>F</b> Demonstrates application of primer on surface <b>G</b> Demonstrates correct application of primer to a peer <b>H</b> Demonstrates types of spray guns <b>I</b> Explains atomization and vaporization <b>J</b> Demonstrates proper stroking and triggering <b>K</b> Demonstrates overlapping and arcing <b>L</b> Demonstrates application of safety techniques
15.00	10.00	<b>17 <u>REFINISHING PROCEDURES</u></b> <b>A</b> Identifies finish on vehicle <b>B</b> Reviews condition of surface <b>C</b> Prepares the surface for finish <b>D</b> Explains multi stage finishes
30.00	10.00	<b>18 <u>REFINISHING</u></b> <b>A</b> Demonstrates masking <b>B</b> Selects correct finish material <b>C</b> Correctly mixes and handles finish material <b>D</b> Sprays finishing materials <b>E</b> Performs spot repairs <b>F</b> Blends and polishes as required

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30.00	5.00	<b>19 <u>CUSTOM FINISHING</u></b>
		A Demonstrates custom finishing
		B Demonstrate finishing to match vehicle color
		C Demonstrates custom shading
		D Demonstrates masking for custom finishing
		E Demonstrates striping
		F Demonstrates detailing
		G Demonstrates clean-up and storage of equipment

30.00	10.00	<b>20 <u>PAINT SHOP OPERATION</u></b>
		A Understands paint shop layout to meet safety requirements
		B Understands fundamentals of paint estimating
		C Understands paint shop management
		D Demonstrates spray booth observation time and mixing chemistry of paint
		E Demonstrates paintless dent removal

25.00	10.00	<b>21 <u>BODY SHOP OPERATION</u></b>
		A Understands body shop layout
		B Demonstrates knowledge of estimating cost of repairs and filling out a repair order.
		C Understands body shop management
		D Performs body shop repair observation
		E Understands hazardous waste requirements

30.00	5.00	<b>22 <u>STRUCTURAL REPAIR AND PANEL ALIGNMENT</u></b>
		A Identifies parts of frame straightener
		B Demonstrates frame and straighten set ups
		C Demonstrates practical use of straightener on damaged car and align panels
		D Completes manipulative test for frame straightening capabilities
		E Demonstrates use of gauging and analysis
		F Demonstrates parts identification
		G Identifies damage analysis
		H
		I Identifies ultra high, high strength alloy

25.00	5.00	<b>23 <u>FIBERGLASS AND PLASTICS</u></b>
		A Identifies different types of plastic
		B Repairs plastics
		C Mixes resin and hardener
		D Applies fiberglass cloth
		E Applies fiberglass mat
		F Prepares fiberglass surface for finish
		G Finishes fiberglass

		<b>24 <u>BODY COMPONENTS</u></b>
		A Demonstrates removal and replacement
		B Demonstrates removal and installation

## Additional Course Information

This course articulates with Chaffey College

### TOTAL HOURS

Class	OJT	Course
540.00	180.00	720.00