

Student's Name/Initials

/

Date

Teacher's Initials

Date

AUTOMOTIVE COLLISION REPAIR TECHNOLOGY

Course Codes: 6020, 6021, 6022, and 6023

DIRECTIONS: Evaluate the student using the applicable rating scales below and check the appropriate box to indicate the degree of competency. The ratings 3, 2, 1, and N are not intended to represent the traditional school grading system of A, B, C, and D. The description associated with each of the ratings focuses on the level of student performance or cognition for each of the competencies listed below.

PERFORMANCE RATING

- 3 - Skilled--can perform task independently with no supervision
 2 - Moderately skilled--can perform task completely with limited supervision
 1 - Limitedly skilled--requires instruction and close supervision
 N - No exposure--has no experience or knowledge of this task

COGNITIVE RATING

- 3 - Knowledgeable--can apply the concept to solve problems
 2 - Moderately knowledgeable--understands the concept
 1 - Limited knowledge--requires additional instruction
 N - No exposure--has not received instruction in this area

UNIT A. PERFORMING WORK SAFETY PRACTICES

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| 3 2 1 N | |
| ___ ___ ___ ___ | 1. Demonstrate the ability to work safely and keep a safe work area. |
| ___ ___ ___ ___ | 2. Operate a fire extinguisher. |
| ___ ___ ___ ___ | 3. Demonstrate the safe use of hand and power tools. |
| ___ ___ ___ ___ | 4. Demonstrate understanding of "right to know" laws including OSHA regulations and EPA Rule 40. |

UNIT B. DEMONSTRATING UNDERSTANDING OF VEHICLE CONSTRUCTION AND COLLISION ENERGY MANAGEMENT

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| 3 2 1 N | |
| ___ ___ ___ ___ | 1. Describe various types of vehicle construction:
a. space frame construction,
b. body-over-frame construction,
c. unibody construction. |
| ___ ___ ___ ___ | 2. Identify structural parts and cosmetic parts. |
| ___ ___ ___ ___ | 3. Demonstrate knowledge of collision energy management principles. |

UNIT C. DEMONSTRATING PLASMA CUTTING SKILLS

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| 3 2 1 N | |
| ___ ___ ___ ___ | 1. Set up plasma cutter for cutting automotive gauge sheet metal. |

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| 3 2 1 N | |
| ___ ___ ___ ___ | 2. Cut a 6-inch straight line in 18- to 22-gauge sheet metal. |
| ___ ___ ___ ___ | 3. Cut a dime-size circular hole in 18- to 22-gauge sheet metal. |

UNIT D. DEMONSTRATING MIG WELDING SKILLS

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| 3 2 1 N | |
| ___ ___ ___ ___ | 1. Demonstrate knowledge of how to protect computers and other electronic control modules during welding procedures according to manufacturer's specifications. |
| ___ ___ ___ ___ | 2. Set up and adjust MIG welder for welding 18- to 22-gauge sheet metal. |
| ___ ___ ___ ___ | 3. Construct the following welds (vertical and overhead positions) using I-CAR gauge to I-CAR specification:
a. continuous bead-lap weld;
b. continuous bead-butt weld with backing;
c. plug weld;
d. continuous bead open butt joint weld. |
| ___ ___ ___ ___ | 4. Demonstrate knowledge of aluminum welding. |

UNIT E. DEMONSTRATING SKILLS IN PLASTICS

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| 3 2 1 N | |
| ___ ___ ___ ___ | 1. Demonstrate knowledge of current automotive plastics. |

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| 3 2 1 N | |
| ___ ___ ___ ___ | 2. Demonstrate knowledge of plastic identification methods. |
| ___ ___ ___ ___ | 3. Perform a one-sided adhesive repair to a bumper cover and other plastic body parts. |
| ___ ___ ___ ___ | 4. Perform a two-sided adhesive repair to a bumper cover and other plastic body parts. |

UNIT F. DEMONSTRATING BASIC SHEET METAL REPAIR SKILLS

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| 3 2 1 N | |
| ___ ___ ___ ___ | 1. Rough out and align cosmetic panels using hammer and dolly techniques. |
| ___ ___ ___ ___ | 2. Finish to final contour by using the following techniques:
a. hammer and dolly,
b. picking and filing, and
c. shrinking |
| ___ ___ ___ ___ | 3. Demonstrate stud gun techniques in cosmetic panel alignment. |
| ___ ___ ___ ___ | 4. Prepare the straightened area for filling by grinding and featheredging. |
| ___ ___ ___ ___ | 5. Fill and finish panel irregularities using plastic fillers. |
| ___ ___ ___ ___ | 6. Demonstrate knowledge of repairing various levels of corrosion damage. |
| ___ ___ ___ ___ | 7. Repair damaged threads using thread |

UNIT G. DEMONSTRATING STRUCTURAL ALIGNMENT SKILLS

3 2 1 N

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|-----|-----|-----|-----|---|
| ___ | ___ | ___ | ___ | 1. Demonstrate how to interpret a structural dimension sheet. |
| ___ | ___ | ___ | ___ | 2. Determine structural alignment using three-dimensioning and point-to-point measuring. |
| ___ | ___ | ___ | ___ | 3. Analyze and diagram structural damage. |
| ___ | ___ | ___ | ___ | 4. Develop a structural repair plan. |
| ___ | ___ | ___ | ___ | 5. Demonstrate knowledge and operation of MacPherson strut and SLA suspension systems. |
| ___ | ___ | ___ | ___ | 6. Demonstrate knowledge and operation of rack and pinion and parallelogram steering systems. |
| ___ | ___ | ___ | ___ | 7. Demonstrate knowledge of wheel alignment and wheel alignment angles. |
| ___ | ___ | ___ | ___ | 8. Demonstrate knowledge and use of self-centering gauges and tram gauges. |

UNIT H. DEMONSTRATING SKILLS REQUIRED TO REMOVE AND REPLACE TRIM, ACCESSORIES, AND HARDWARE

3 2 1 N

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| ___ | ___ | ___ | ___ | 1. Remove and replace various bumper systems. |
| ___ | ___ | ___ | ___ | 2. Replace and/or align bumper reinforcements. |
| ___ | ___ | ___ | ___ | 3. Replace and/or align energy absorbers. |
| ___ | ___ | ___ | ___ | 4. Remove and replace grille. |
| ___ | ___ | ___ | ___ | 5. Demonstrate knowledge of various types of restraint systems and how to disable them. |
| ___ | ___ | ___ | ___ | 6. Demonstrate knowledge of how to access OEM guidelines for restraint systems service. |
| ___ | ___ | ___ | ___ | 7. Remove and replace trim panels. |
| ___ | ___ | ___ | ___ | 8. Remove and replace molding. |
| ___ | ___ | ___ | ___ | 9. Demonstrate knowledge of how to install weather stripping. |
| ___ | ___ | ___ | ___ | 10. Demonstrate knowledge of how to remove, replace, and align door locks and mating parts. |
| ___ | ___ | ___ | ___ | 11. Demonstrate knowledge of how to remove, replace, and align trunk locks and mating parts. |

3 2 1 N

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| ___ | ___ | ___ | ___ | 12. Demonstrate knowledge of how to remove, replace, and adjust window regulators. |
| ___ | ___ | ___ | ___ | 13. Demonstrate knowledge of how to remove and replace front and rear seats. |
| ___ | ___ | ___ | ___ | 14. Remove, replace, and align hood locks and mating parts. |
| ___ | ___ | ___ | ___ | 15. Install new nonstructural body sheet metal. |

UNIT I. DEMONSTRATING AUTOMOBILE GLASS REPLACEMENT SKILLS

3 2 1 N

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|-----|-----|-----|-----|---|
| ___ | ___ | ___ | ___ | 1. Demonstrate understanding of removing and replacing fixed glass (heated and non-heated) using manufacturer's specifications/-procedures and recommended materials. |
| ___ | ___ | ___ | ___ | 2. Demonstrate understanding of removing and replacing movable glass. |

UNIT J. DEMONSTRATING PAINTING AND REFINISHING SKILLS

3 2 1 N

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|-----|-----|-----|-----|--|
| ___ | ___ | ___ | ___ | 1. Demonstrate knowledge of painting booth operations. |
| ___ | ___ | ___ | ___ | 2. Clean and condition bare metal for corrosion resistant primers. |
| ___ | ___ | ___ | ___ | 3. Demonstrate knowledge of restoring corrosion protection to repaired or replaced unibody structural areas. |
| ___ | ___ | ___ | ___ | 4. Prepare panel surfaces for refinishing:
a. sanding
b. scuffing,
c. feather-edging,
d. blocking,
e. cleaning. |
| ___ | ___ | ___ | ___ | 5. Mask sections and parts. |
| ___ | ___ | ___ | ___ | 6. Apply various primers and sealers. |
| ___ | ___ | ___ | ___ | 7. Apply single stage paint. |
| ___ | ___ | ___ | ___ | 8. Apply basecoat/clearcoat paint. |
| ___ | ___ | ___ | ___ | 9. Blend a panel using a basecoat/clearcoat finish. |
| ___ | ___ | ___ | ___ | 10. Demonstrate knowledge of the color tinting process. |
| ___ | ___ | ___ | ___ | 11. Demonstrate knowledge of applying multi-stage paints. |
| ___ | ___ | ___ | ___ | 12. Demonstrate knowledge of waterborne finishes. |

3 2 1 N

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| ___ | ___ | ___ | ___ | 13. Demonstrate knowledge of paint defects, causes, and cures. |
| ___ | ___ | ___ | ___ | 14. Prepare and refinish plastic parts. |
| ___ | ___ | ___ | ___ | 15. Demonstrate knowledge of removal and application of decals and stripes. |
| ___ | ___ | ___ | ___ | 16. Perform final detail and cleanup for delivery. |

UNIT K. DEMONSTRATING AUTOMOBILE BODY REPAIR ESTIMATING SKILLS

3 2 1 N

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| ___ | ___ | ___ | ___ | 1. Compute the cost of parts and labor for a collision-damaged vehicle using a crash estimating guide. |
| ___ | ___ | ___ | ___ | 2. Determine paint and materials costs for an estimate. |
| ___ | ___ | ___ | ___ | 3. Complete and total the estimate form. |

UNIT L. DEMONSTRATING EMPLOYABILITY SKILLS

3 2 1 N

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|-----|-----|-----|-----|---------------------------------------|
| ___ | ___ | ___ | ___ | 1. Complete a resume. |
| ___ | ___ | ___ | ___ | 2. Complete a job application. |
| ___ | ___ | ___ | ___ | 3. Create a portfolio. |
| ___ | ___ | ___ | ___ | 4. Demonstrate interviewing skills. |
| ___ | ___ | ___ | ___ | 5. Demonstrate workplace/soft skills. |