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Student Name

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High School or Vocational Center

**COMPETENCY RECORD FOR ARTICULATION**

**Baker College**

Please check below each skill the student has mastered with a minimum of 80 percent accuracy or with an A or B grade.

**ABT 151: MIG WEDING**

<b>Task</b>	<b>Satisfactory</b>	<b>Unsatisfactory</b>
NON-STRUCTURAL ANALYSIS AND DAMAGE REPAIR (BODY COMPONENTS)		
E. Metal Welding and Cutting (MIG WELDING)		
1. Identify weldable and non-weldable materials used in collision repair.		
2. Weld and cut high-strength steel and other steels.		
3. Weld and Cut Aluminum.		
4. Determine the correct GMAW (MIG) welder type, electrode wire type, and diameter and gas to be used in a specific welding situation.		
5. Set up and adjust the GMAW (MIG) welder to "tune" for proper electrode stickout, voltage, polarity, flow rate and wire-feed required for the material being welded.		
6. Store, handle and install high pressure gas cylinders.		
7. Determine work clamp (ground) location.		
8. Use proper angle of the gun to the joint and direction of gun travel for the type of weld being made in the flat, horizontal, vertical and overhead positions.		
9. Protect adjacent panels, glass, vehicle interior, etc. from welding and cutting operations.		
10. Protect computers and other electronic control modules during welding procedures.		

Task	Satisfactory	Unsatisfactory
11. Clean and prepare the metal to be welded, assure good metal fit-up, apply weld-through primer if necessary, and clamp as required.		
12. Determine the joint type (butt weld with backing lap, etc.) for weld being made.		
13. Determine the type of weld (continuous, butt weld with backing, plug, etc.) for each specific welding operation.		
14. Perform the following welds: continuous, stitch, tack, plug, butt weld with and without backing, and fillets.		
15. Perform visual and destructive tests on each weld type.		
16. Identify the causes of various welding defects; make necessary adjustments.		
17. Identify the causes of contact tip burn-back and failure of wire to feed; make necessary adjustments.		
18. Identify cutting process for different materials and locations; perform cutting operation.		
19. Identify different methods of attaching non-structural components (squeeze type resistant spot welds (STRSW), Riveting, non-structural adhesive, silicon bronze.		
20. Learn Safety Requirements for safely working with welding machines and equipment.		
21. Properly Setup and Adjust Oxy-Acetylene Equipment.		
22. Learn distortion control theory and practices.		
23. Brazing and Soldering		
24. Learn Theory, Techniques and practices on Gas Tungsten Arc Welding (Tig).		

Teacher signature \_\_\_\_\_ Date \_\_\_\_\_