

CURRICULUM MAP
Cluster: Transportation, Distribution and Logistics
CTE Program of Study: TR1670 Collision Repair Technology

STANDARD	%	SKILL SET/COMPETENCY	REQUIRED CORE COURSES FOR COMPLETION			
			1671 Fundamentals of Collision Repair Technology	1675 Non- Structural Analysis and Damage Repair	1677 Structural Analysis and Damage Repair	1679 Surface Preparation and Refinishing
Safety	11%	Demonstrate knowledge of safety and environmental requirements in the collision repair industry	X	X	X	X
		Demonstrate appropriate care and maintenance of shop tools and equipment	X	X	X	X
		Identify proper safety techniques for the use of shop equipment, including PPE	X	X	X	X
Business Fundamentals	8%	Apply basic business practices within the collision repair industry, including estimating	X	X	X	X
		Identify employability skills within the collision repair industry	X	X	X	X
MIG/GMAW and STRSW	13%	Demonstrate vehicle protection procedures				X
		Describe various cutting and weld removal processes			X	X
		Describe and differentiate various types and uses of welding processes				X
		Replace and/or repair structural components			X	X
Structural	13%	Select, set-up, and utilize manual measuring systems			X	
		Select, set-up, and utilize computerized measuring systems			X	
		Demonstrate set up and operation of various pulling systems			X	
		Diagnose primary and secondary structural damage			X	

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		Demonstrate knowledge of working with high strength steel			X	
Non-Structural	23%	Identify automotive plastics and proper repair procedures		X		
		Diagnose primary and secondary non-structural damage		X		
		Demonstrate knowledge of movable and stationary glass		X		
		Utilize basic corrosion protection procedures		X		
		Use adhesive bonding procedures		X		
		Remove and replace automotive trim		X		
		Remove, install, replace, align, or repair non-structural panels		X		
		Remove, install, and replace ancillary components (e.g., headlamps, under-hood fuse boxes)		X		
Mechanical and Electrical Systems	17%	Identify basic steering and suspension components (e.g., tie rod ends, ball joints, steering racks)			X	
		Identify how collision damage affects basic suspension geometry			X	
		Verify functions of electrical system and basic wiring repair (e.g., soldering, quick connectors)		X		
		Perform basic mechanical and electrical diagnostic operations		X		
Painting and Refinishing	15%	Identify painting and refinishing safety and environmental requirements	X			X
		Identify and demonstrate surface preparation techniques	X			X

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		Identify and demonstrate paint materials preparation techniques				X
		Identify causes and remedies for paint defects				X
		Identify and demonstrate paint materials application techniques				X