

CURRICULUM MAP
Cluster: Transportation
CTE Program of Study: TR1620 Automotive Technology

STANDARD	%	SKILL SET/COMPETENCY	REQUIRED CORE COURSES FOR COMPLETION			
			Automotive Technology MLR-1	Automotive Technology MLR-2	Automotive Technology MLR-3	Automotive Technology MLR-4
Engine Repair	5%	Inspect and service general engine issues, including adjusting valve trains			X	X
		Inspect, test, and service lubrication and cooling systems			X	X
Automatic Transmission and Transaxle	5%	Check fluids on transmission/transaxle				X
		Perform in-vehicle transmission/transaxle inspections and service				X
		Describe and identify operational characteristics of transmission/transaxle for CVT and hybrids				X
Manual Drive Train and Axles	14%	Check fluid condition and service transmissions and transaxles				X
		Perform clutch master cylinder inspections and service				X
		Identify, describe, inspect, and service manual transmission and transaxle issues				X
		Inspect and service drive shaft, half shafts, universal, and constant-velocity (CV) joints				X
		Inspect and service differential case assembly				X
		Inspect and service four wheel drive and all wheel drive systems				X
Suspension and Steering	8%	Perform related suspension and steering systems inspection and service		X		
		Perform vehicle pre-alignment inspection and ride-height		X		
		Inspect and service wheels and tires		X		
Brakes	13%	Inspect and service hydraulic system		X		

STANDARD	%	SKILL SET/COMPETENCY	REQUIRED CORE COURSES FOR COMPLETION			
			Automotive Technology MLR-1	Automotive Technology MLR-2	Automotive Technology MLR-3	Automotive Technology MLR-4
		Inspect and service drum brakes		X		
		Inspect and service disc brakes		X		
		Inspect and service power-assist units		X		
		Inspect and service miscellaneous systems (e.g., wheel bearings, parking brakes, electrical)		X		
		Identify and describe electronic brakes, traction, and stability control systems		X		
Electrical and Electronic Systems	15%	Inspect and service general electrical/electronic systems	X			
		Inspect and service batteries	X			
		Inspect and service starting systems			X	
		Inspect and service charging systems			X	
		Inspect and service lighting systems			X	
		Inspect and service accessories			X	
Heating and Air Conditioning	9%	Inspect and service refrigeration system components				X
		Inspect and service heating, ventilation, and engine cooling systems				X
		Inspect and service operating systems and related controls				X
Engine Performance	20%	Inspect and service general engine performance	X		X	
		Identify and describe computerized controls			X	
		Inspect and service fuel, air induction, and exhaust systems			X	
		Inspect and service emissions control systems			X	
Customer Relations and Shop Procedures	11%	Interpret and estimate repair and work orders	X	X	X	X
		Utilize computerized and written vehicle service information	X	X	X	X
		Exhibit understanding of appropriate customer interactions	X	X	X	X

STANDARD	%	SKILL SET/COMPETENCY	REQUIRED CORE COURSES FOR COMPLETION			
			Automotive Technology MLR-1	Automotive Technology MLR-2	Automotive Technology MLR-3	Automotive Technology MLR-4
		Exhibit understanding of automotive, environmental, and hazardous materials	X	X	X	X
		Display understanding of safe work environment and shop procedures	X	X	X	X
		Identify proper tool handling and maintenance procedures	X	X	X	X