CCC Program Outcomes

Automotive Technology

Upon successful completion of the technical education requirements and the suggested program requirements for a Certificate the student shall:

Program Outcomes

4	D 11 C 1 .	1 (1 .	•	1		1 ''
	Provide fundamenta	IC Of hacid	םמותמםי	nrincinlac	Anaration and	1 maintananca
1	Provide fundamenta	เร บเ บลรเเ	. CHEIHE	DI HICIDICS.	. UDELAUUH AHL	i illallitellalite
				r - r ,	· · · · · · · · · · · · · · · · · · ·	

- 2 Provide knowledge of principles, operation, diagnosis and service of disc brakes, drum brakes, and ABS systems
- 3 Provide knowledge of principles, operation, diagnosis and service of steering and suspension systems and alignments
- 4 Provide knowledge of principles, operation, diagnosis and service of automotive electrical systems, and wiring diagrams
- Provide knowledge of principles, operation, diagnosis and service of engine performance problems with diagnostic equipment such as scanners and analyzers
- 6 Demonstrate shop procedures and repair procedures with the correct tools and equipment in a safe environmentally friendly manner
- Provide training to develop mathematical, along with oral and written communication skills to problem solve effectively in an automotive repair shop
- 8 Provide knowledge of principles, operation, diagnoses and service of heating and air conditioning systems
- 9 Provide knowledge of principles, operation, diagnoses and service of automatic transmissions and transaxles

Course #	Course Title	PO - 1	PO - 2	PO-3 PO-4	PO - 5	PO - 6	PO - 7	PO -8	PO - 9
ASTC-109	Brakes 1								
	Diagnose general brake systems		X			X			
	Diagnose and repair hydraulic systems		X			X			
	Drum brake diagnosis and repair		X			X			
ASTC-237	Brakes 2								
	Disc brake diagnosis and repair		X			X			
	Power assist units diagnosis and repair		X			X			

Course #	Course Title	PO - 1	PO - 2	PO - 3	PO - 4	PO - 5	PO - 6	PO - 7	PO -8	PO - 9
	Miscellaneous (wheel bearings, parking brakes, electrical, etc.) diagnosis and repair		X				X			
	Antilock brake and traction control systems		X				X			
ASTC-133	Suspension and Steering 1									
	Perform steering systems diagnosis and			X			X			
	renair Perform suspension system diagnosis and renair			X			X			
ASTC-233	Suspension and Steering 2									
	Perform wheel alignment diagnosis, adjustment, and repair			X			X			
	Perform wheel and tire diagnosis and repair			X			X			
ASTC-140	Electrical Systems 1									
	Perform general electrical system diagnosis				X		X			
	Perform battery diagnosis and repair				X		X			
ASTC-223	Electrical Systems 2									
	Determine correct diagnosis and repair of gauges, warning devices, and driver information systems				X		X			
	Perform horn and wiper/washer diagnosis and repair				X		X			
	Perform accessories diagnosis and repair				X		X			
ASTC-122	Engine Performance 1									

Course #	Course Title	PO - 1	PO - 2	PO - 3	PO - 4	PO - 5	PO - 6	PO - 7	PO -8	PO - 9
	Perform general engine diagnosis	X				X	X			
	Diagnosis and repair computerized engine controls	X				X	X			
	Perform ignition system diagnosis and repair	X				X	X			
ASTC-280	Engine Performance 2									
	Perform fuel, air induction and exhaust systems diagnosis and repair	X				X	X			
	Perform emissions control systems diagnosis and repair	Х				X	X			
	Define engine related service	X				X	X			
ASTC-107	Shop Math and Communication I									
	Understand Linear Measurement							X		
	Compute Fractions, Decimals and Percents.							X		
	Understand Checking Accounts, ATMS, and							X		
	Statement Reconciliation							Λ		
	Understand Gross Earnings and Payroll Deductions							X		
	Understand the handling of monies personally and professionally	7						X		
ASTC-217	Shop Math and Communication II									
	Understand Work Ethics							X		
	Understand Customer Relations							X		
	Understand Employability Skills							X		
	Complete a Personal Portfolio							X		
ASTC-160	Automotive Heating and Air Conditioning									
	Perform A/C system diagnosis and repair								X	

Course #	Course Title	PO - 1	PO - 2	PO - 3	PO - 4	PO - 5	PO - 6	PO - 7	PO -8	PO - 9
	Understand refrigeration system component								Х	
	diagnosis and repair								Λ	
	Understand heating, ventilation, and engine								Х	
	cooling systems diagnosis and repair								Λ	
	Understand operating systems and related								Х	
	controls diagnosis and repair								Λ	
	Perform refrigerant recovery, recycling, and								X	
	handling								Λ	
ASTC-170	Automatic Transmission									
	Perform general transmission and transaxle									
	diagnosis									X
	Perform transmission and transaxle									
	maintenance and adjustment									Х
	Perform in-vehicle transmission and									
	transaxle repair									X
	Perform off-vehicle transmission and									
	transaxle repair									X
	Inspect diagnose and repair the oil pump and									
	converter									Х
	Explain the gear train, shafts, bushings and cas	se								Х
	Determine the friction and reaction units									Х
ASTC-150	Engine Repair									
	Demonstrate shop safety with tools and	V								
	equipment	X								
	Understand and test internal components of a	V								
	four-cycle internal combustion engine	X								
	Perform basic maintenance procedures	X								
	Understand cylinder head and valve train	v								
	diagnosis and repair	X								

Course #	Course Title	PO - 1	PO - 2	PO - 3 P	PO - 4	PO - 5	PO - 6	PO - 7	PO -8	PO - 9
	Perform engine block assembly diagnosis and repair	X								
	Perform lubrication and cooling systems diagnosis and repair	X								