

Automotive Technology Assessment Plan Rev. 9/16/2018

Automotive Technology	16-17	17-18	18-19	19-20	20-21	21-22
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AUTOB3 - Fundamentals of Automotive Management and Services

• Upon completion the student will be able to: 1. Upon successful completion of the course, the student will successfully prepare a repair order based on customer needs.			P			
• 2. Upon successful completion of the course, the student will locate an after-market part using an electronic catalog system.			P			
• 3. Upon successful completion of the course, the student will prepare and process a warranty claim based on factory/distributor criteria.			P		P	
• 4. Upon successful completion of the course, the student will compile and process a customer's DMV paperwork based on California regulations.			P			

AUTOB10 - Automotive Safety

• 1. Upon completion the student will be able to: Demonstrate the ability to evaluate common shop and personal safety hazards in the workplace.		C				
• 2. Upon completion the student will be able to: Memorize and pass the nationally recognized OSHA shop safety exams.			P			
• 3. Upon completion the student will be able to: Evaluate and explain the necessity for safety procedures.				P		

AUTOB11 - Introduction to Automotive Technology

• 1. Upon completion the student will be able to: evaluate and maintain the engine timing system components of a vehicle.		C				
• 2. Upon completion the student will be able to: perform tire work.		C				
• 3. Upon completion the student will be able to: inspect and evaluate the suspension, steering, and brake systems of a vehicle.			P			
• 4. Upon completion the student will be able to: inspect and evaluate the condition of engine and cooling system components.				P		
• 5. Upon completion the student will be able to: assemble basic electrical circuits, perform electrical measurements and evaluate them using the principles of Ohm's Law.			P			

AUTOB20 - Engine Theory, Design and Diagnosis

• Upon completion the student will be able to: explain the operation of the internal combustion engine, including both four stroke and two stroke operation.		C				
• Upon completion the student will be able to: compare and contrast design characteristics of internal combustion engines			P			
• Upon completion the student will be able to: evaluate and assess the condition of an internal combustion engine			P			

AUTOB21 - Upper Engine Systems and Machining

• Upon completion the student will be able to: measure cylinder head components, analyze their condition and determine corrective action.		C				
• Upon completion the student will be able to: employ machining theory and demonstrate proficiency in operation of automotive engine machining equipment.			P			
• Upon completion the student will be able to: inventory the required components and assemble a cylinder head assembly				P		

AUTOB22 - Lower Engine Systems and Machining

• Upon completion the student will be able to: measure lower engine components, analyze their condition and determine corrective action.		C				
• Upon completion the student will be able to: employ machining theory and demonstrate proficiency in operation of cylinder block machining equipment.			P			
• Upon completion the student will be able to: employ machining theory and demonstrate proficiency in operation of crankshaft machining equipment.				P		

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AUTOB23 - Engine Assembly and Performance						
• 1. Upon completion the student will be able to:inventory the required components and prepare them for complete engine assembly			P			
• 2. Upon completion the student will be able to:demonstrate proficiency in engine reassembly and initial start-up.			P			
• 3. Upon completion the student will be able to:explain advanced principles, components, diagnosis and performance of internal combustion engines				P		
AUTOB30 - Electrical and Electronic Systems						
• Upon completion the student will be able to:evaluate the integrity of electrical and electronic circuits using wiring diagrams and the principles of Ohm's Law.		C				
• Upon completion the student will be able to:assemble basic electrical circuits, perform electrical measurements with Industry recognized tools and procedures.			P			
• Upon completion the student will be able to:analyze battery, starting and charging system faults and be able to formulate a diagnostic strategy.				P		
AUTOB31 - Advanced Electrical and Electronic Systems						
• Upon completion the student will be able to;evaluate the calibration of a vehicle's computer modules		C				
• Upon completion the student will be able to;analyze data from computer modules and formulate a diagnostic pathway in solving automotive repair problems.			P			
• Upon completion the student will be able to;analyze computer networking faults and be able to formulate a diagnostic strategy				P		
AUTOB33 - Engine Performance						
• Upon completion the student will be able to;set up a scan tool and retrieve diagnostic trouble codes.		C				
• Upon completion the student will be able to:inspect ignition systems and evaluate the condition of the components in the system			P			
• Upon completion the student will be able to:inspect fuel and emission systems and evaluate the condition of the components in the system				P		
AUTOB34 - Advanced Engine Performance						
• 1. Upon completion of the course, the student will be able to effectively utilize the capabilities of a scan tool to analyze and interpret test results or data to solve automotive repair problems.			P			
• 2. Upon completion of the course, the student will be able to analyze ignition, fuel and emission malfunctions and be able to formulate a diagnostic strategy			P			
• 3. Upon completion of the course, the student will be able to perform pinpoint tests on ignition, fuel, and emission sensors/actuators then compare the readings against factory specifications.			P			
AUTOB36 - Light Duty Diesel Performance						
• Upon completion the student will be able to:evaluate the difference between electrical/fuel system problems and engine mechanical problems to formulate a repair strategy.			P			
• Upon completion the student will be able to:analyze no start conditions and be able to formulate a diagnostic strategy			P			
• Upon completion the student will be able to:analyze loss of power conditions and be able to formulate a diagnostic strategy				P		
AUTOB39 - Level 1 and Level 2 Smog Inspector Training						
• Upon completion the student will be able to;Evaluate the condition of a vehicle's fuel and emission components by performing Smog Check visual inspections according to the BAR requirements and procedures.	C	C				
• Upon completion the student will be able to;Perform smog check functional tests and compare the results to manufacture's specifications and/or BAR requirements.			P			
• Upon completion the student will be able to;Set up a vehicle and perform Smog Check emission test.				P		

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AUTOB40 - Suspension&#44 Steering and Wheel Alignment						
• Upon completion the student will be able to:evaluate and test suspension and steering systems and compare findings against manufacturer's specifications.		C				
• Upon completion the student will be able to:disassemble, inspect, reassemble, and set up steering boxes.			P			
• Upon completion the student will be able to:set up a vehicle and perform a four wheel alignment.				P		
AUTOB43 - Brake Systems						
• Upon completion the student will be able to:evaluate, measure, and rebuild mechanical and hydraulic brake system components		C				
• Upon completion the student will be able to:perform brake jobs on disc and drum brake system			P			
• Upon completion the student will be able to:diagnose brake system electronic, hydraulic and mechanical problems				P		
AUTOB46 - Automatic Transmissions						
• Upon completion the student will be able to:test and evaluate the integrity of mechanical and hydraulic systems in automatic transmissions		C				
• Upon completion the student will be able to:test and evaluate the integrity of electrical and electronic systems in automatic transmissions			P			
• Upon completion the student will be able to:disassemble, inspect, reassemble, and set up automatic transmissions.				P		
AUTOB48 - Manual Transmissions and Drivetrain						
• Upon completion he student will be able to:evaluate clutch assemblies and systems and perform repair procedures		C				
• Upon completion he student will be able to:disassemble, examine, reassemble, and set up manual transmissions.			P			
• Upon completion he student will be able to:disassemble, examine, reassemble, and set up differentials.				P		
AUTOB48WE - Occupational Work Experience Education/Internship						
• Upon completion the student will be able to:Articulate the specific work experience objectives in automotive as described by employer and identify the various skills, knowledge and attitudes necessary to the accomplishment of those objectives		C				
• Upon completion the student will be able to:Demonstrate the acquisition of the various skills, knowledge and attitudes necessary to the completion of the work experience objectives in Automotive Technology and the ability to effectively meet employer's job expectations.			P			
• Upon completion the student will be able to:Identify and analyze the application of acquired skills, knowledge and attitudes to career opportunities in Automtive.				P		
AUTOB49 - Automotive Air Conditioning						
• Upon completion the student will be able to:set up automotive air conditioning test, service and repair equipment		C				
• Upon completion the student will be able to:inspect various vehicles heating and air conditioning systems and evaluate their condition.			P			
• Upon completion the student will be able to:apply the proper diagnostic and repair strategies, take measurements of heating and air conditioning systems. and compare readings against industry specifications.				P		