Identifier	Poplar - Apprentice - Automotive Technology		Introduced	Completed
A AT 1	**SAFETY**			
A AT 1.1.01	General Rules	Identify potential general lab safety hazards.		
A AT 2	**GENERAL LAB PROCEDURES**			
A AT 2.1.01	Tools and Equipment Use	List common tool names.		
A AT 2.2.01	Information	Retrieve vehicle information from the owner's manual.		
A AT 2.2.02	Information	List common sources of service information.		
A AT 2.3.01	Customer Service	Properly clean and detail a vehicle to return to the customer.		
A AT 2.3.02	Customer Service	Explain the purpose of a repair order.		
A AT 2.4.01	Vehicle Service	Identify fluid by color.		
A AT 2.4.02	Vehicle Service	List the essential tasks of a basic vehicle service.		
A AT 3	**ENGINE REPAIR**			
A AT 3.1.01	General	Identify the engine make, configuration and displacement on a specified vehicle.		
A AT 3.1.02	General	Explain the difference between oil viscosities.		
A AT 5	**MANUAL DRIVETRAIN AND AXLES**			
A AT 5.1.01	Drivetrain/Axle Service	Identify and calculate gear ratios.		
A AT 5.1.02	Drivetrain/Axle Service	Identify different transmission and axle lubricants.		
A AT 5.1.03	Drivetrain/Axle Service	Identify transmission and axle components.		
A AT 5.1.04	Drivetrain/Axle Service	Explain power flow.		
A AT 6	**SUSPENSION AND STEERING**			
A AT 6.1.01	Systems Service	Identify primary steering components.		
A AT 6.1.02	Systems Service	Identify primary suspension components.		
A AT 6.2.01	Wheels/ Tires	Explain tire specifications and capacities.		
A AT 6.2.02	Wheels/ Tires	Explain common tire construction and tread patterns.		
A AT 6.2.03	Wheels/ Tires	Identify torque methods and patterns.		
A AT 6.2.04	Wheels/ Tires	Identify different types of wheel construction and materials.		
A AT 6.2.05	Wheels/ Tires	Remove and replace valve stems and caps.		
A AT 7	**BRAKES**			
A AT 7.1.01	Braking Systems	Identify the major components of a brake hydraulic system.		
A AT 7.2.01	Disc Brakes	Compare and contrast disc and drum brake systems.		
A AT 7.2.02	Disc Brakes	Determine the minimum thickness of a rotor.		
A AT 7.2.03	Disc Brakes	Identify respiratory safety concerns when servicing disc brake systems.		
A AT 7.3.01	Drum Brake	Compare and contrast disc and drum brake systems.		
A AT 7.3.02	Drum Brake	Determine maximum diameter of a brake drum.		
A AT 7.3.03	Drum Brake	Identify respiratory safety concerns when servicing drum brake systems.		
A AT 8	**ELECTRICAL/ ELECTRONIC SYSTEMS**			
A AT 8.1.01	Electrical Systems	Explain the principles of Ohm's Law.		
A AT 8.1.02	Electrical Systems	Explain conventional and electron theory.		
A AT 8.2.01	Batteries	Determine battery group size for a designated vehicle.		
A AT 8.2.02	Batteries	Identify battery locations on different vehicles.		
A AT 8.3.01	Start/ Charge Systems	Perform starter bench tests; determine necessary action.		
A AT 9	**HEATING AND AIR CONDITIONING**			
A AT 9.1.01	Systems Knowledge	Explain the refrigerant cycle.		
A AT 9.1.02	Systems Knowledge	Explain the operation of a typical heating system.		
A AT 10	**ENGINE PERFORMANCE**			
A AT 10.1.01	Diagnosis/ Repair	Describe the four-stroke cycle.		
A AT 10.1.02	Diagnosis/ Repair	Describe the operation of rotary engines.		
A AT 10.2.01	Fuel/ Ignition	List different firing orders for four-, six- and eight-cylinder engines.		
A AT 10.2.02	Fuel/ Ignition	Identify different octane requirements for various engines.		
A AT 11	**ALTERNATIVE FUELS AND VEHICLES**			
A AT 11.1.01	Fuels	List major manufactures of alternative fuels.		
A AT 11.1.02	Fuels	Research the Department of Energy Website for alternative fuels.		
A AT 11.2.01	Vehicles	List major manufacturers of alternative and hybrid vehicles.		
A AT 11.2.02	Vehicles	Research the Department of Energy Website for alternative and alternative fuel vehicles.		
A AT 12	**EMPLOYABILITY SKILLS**			
A AT 12.1.01	Problem Solving	Identify the basic steps in the problem-solving process.		
A AT 12.1.02	Problem Solving	Describe the four-step plan to solve a work-related problem.		
A AT 12.1.03	Problem Solving	Identify the difference between opinions and statements of fact.		
A AT 12.2.01	Speak, Write, Listen	Explain the benefits of effective communication in the automotive industry.		
A AT 12.2.02	Speak, Write, Listen	Explain how cultural and physical diversity affect communication.		
A AT 12.2.03	Speak, Write, Listen	Identify applicable medium for conveying messages.		
A AT 12.3.01	Technology	Use an Internet browser to locate specific Websites related to the automotive industry.		
A AT 12.4.01	Leadership and Teamwork	Explain the importance of groups.		
A AT 12.4.02	Leadership and Teamwork	Explain how to organize groups.		
A AT 12.4.03	Leadership and Teamwork	Wear appropriate attire.		
A AT 12.5.01	Ethics	List the important ethics in the workplace.		

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A AT 12.5.02	Ethics	Meet attendance standards.		
A AT 12.5.03	Ethics	Describe an organized workplace.		
A AT 12.5.04	Ethics	Identify appropriate responses to unethical actions.		
A AT 12.6.01	Workplace	List effective time management skills.		
A AT 12.6.02	Workplace	Maintain a clean, organized and safe work area.		
A AT 12.7.01	Career	Locate employment opportunities.		
A AT 12.7.02	Career	Identify job requirements for entry-level positions in the automotive industry.		
A AT 12.7.03	Career	Identify general conditions for employment.		
A AT 12.7.04	Career	Identify educational/training requirements for related automotive fields.		
A AT 12.7.05	Career	Identify the elements of goal setting.		
A AT 12.7.06	Career	Identify automotive related careers.		
A AT 12.7.07	Career	Describe essential job interview skills.		
A AT 12.7.08	Career	Identify the components of a career portfolio.		
A AT 12.8.01	Retention	Describe the importance of a portfolio.		
A AT 12.8.02	Retention	Identify options for lifelong learning.		
A AT 12.8.03	Retention	Identify interpersonal skills needed for job retention.		
A AT 12.8.04	Retention	Identify jobs with opportunity for advancement.		
A AT 12.8.05	Retention	Describe the importance of career planning.		