

## AER0006 - Introduction to Automotive Services

2013 NATEF JOB TASKS COMPLETION REQUIREMENT: **P1 - 95% P2 - 80% P3 - 50%**

Student Name: \_\_\_\_\_

### DETAILED COURSE CONTENT

## LIGHT VEHICLE MAINTENANCE AND INSPECTION TASK LIST Version 1.0

### 1) PREPARATION AND DOCUMENTATION

#### SHOP AND PERSONAL SAFETY - The student will be able to:

		P1	P2	P3	Level	Date
I-A-1	Identify general shop safety rules and procedures.					
I-A-2	Utilize safe procedures for handling of tools and equipment.					
I-A-3	Identify and use proper placement of floor jacks and jack stands.					
I-A-4	Identify and use proper procedures for safe lift operation.					
I-A-5	Utilize proper ventilation procedures for working within the lab/shop area.					
I-A-6	Identify marked safety areas.					
I-A-7	Identify the location and the types of fire extinguishers and other fire safety equipment; demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment.					
I-A-8	Identify the location and use of eye wash stations.					
I-A-9	Identify the location of the posted evacuation routes.					
I-A-10	Comply with the required use of safety glasses, ear protection, gloves, and shoes during lab/shop activities.					
I-A-11	Identify and wear appropriate clothing for lab/shop activities.					
I-A-12	Secure hair and jewelry for lab/shop activities.					
I-A-13	Demonstrate awareness of the safety aspects of supplemental restraint systems (SRS), electronic brake control systems, and hybrid vehicle high voltage circuits.					
I-A-14	Demonstrate awareness of the safety aspects of high voltage circuits (such as high intensity discharge (HID) lamps, ignition systems, injection systems, etc.).					
I-A-15	Locate and demonstrate knowledge of material safety data sheets (MSDS).					

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### LOCATING INFORMATION - The student will be able to:

P1	P2	P3	Level	Date
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I-B-1	Identify information needed for the service requested on a repair order.					
I-B-2	Identify purpose and demonstrate proper use of fender covers, mats.					
I-B-3	Demonstrate use of the three C's (concern, cause, and correction).					
I-B-4	Review vehicles service history.					
I-B-5	Complete work order to include customer information, vehicle identifying information, customer conc					
	related service history, cause, and correction.					
I-B-6	Check operation and status of instrument panel warning lights and gauges.					

### TOOLS AND EQUIPMENT - The student will be able to:

I-D-1	Identify tools and equipment and their appropriate usage in automotive applications.					
I-D-2	Identify standard and metric designation.					
I-D-3	Demonstrate safe handling and use of appropriate tools.					
I-D-4	Demonstrate proper cleaning, storage, and maintenance of tools and equipment.					
I-D-5	Demonstrate proper use of precision measuring tools (i.e. micrometer, dial-indicator, dial-caliper).					

### PREPARING VEHICLE FOR CUSTOMER - The student will be able to:

I-E-1	Ensure vehicle is prepared to return to customer per school/company policy (floor mats, steering wheel cover, etc.).					
I-E-2	Reset maintenance indicators.					
I-E-3	Verify status of instrument panel warning lights and gauges.					

## 2) FLUIDS, FILTERS, BELTS AND HOSES INSPECTION AND SERVICE

### UNDERHOOD (Part 1) - The student will be able to:

2-A-1	Inspect underhood area for leaks, damage, and unusual conditions.					
2-A-2	Determine fluid type requirements, identify fluid and location on vehicle.					

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### UNDERHOOD (Part 1) - continued

P1	P2	P3	Level	Date
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2-A-3	Check engine oil level and condition; service as required.					
2-A-4	Check engine coolant level and condition; service as required.					

### UNDERHOOD (Part 2) - The student will be able to:

2-B-5	Check all fluid levels and conditions.					
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### UNDERCAR - The student will be able to:

2-C-1	Inspect undercar area for leaks, damage, and unusual conditions.					
2-C-2	Check differential/transfer case fluid level; note unusual conditions; service as required.					
2-C-3	Check manual transmission fluid level; note unusual conditions; service as required.					
2-C-4	Inspect brake lines, flexible hoses, and fittings for leaks, dents, kinks, rust, cracks, bulging or wear.					
2-C-5	Lubricate driveline, suspension and steering systems.					
2-C-6	Inspect cooling system pipes and hoses for wear, damage, and proper routing.					
2-C-7	Change engine oil and filter.					

### FILTERS AND DRIVE BELTS - The student will be able to:

2-D-1	Inspect inline fuel filters as applicable.					
2-D-2	Inspect and replace air filter.					
2-D-3	Inspect and replace cabin air filter.					
2-D-4	Inspect drive belts, tensioners and pulleys.					
2-D-5	Document observed damage, unusual conditions, and concerns.					

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### 3) SUSPENSION, TIRE, AND BRAKE INSPECTION AND SERVICE

**SUSPENSION INSPECTION - The student will be able to:**

P1	P2	P3	Level	Date
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3-A-1	Visually inspect steering and suspension components.					
3-A-5	Visually inspect constant velocity (CV) axle shaft boots.					

**BRAKE - The student will be able to:**

3-D-1	Perform a visual inspection of the brake systems.					
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### 4) BODY INSPECTION AND SERVICE

**BODY - The student will be able to:**

4-A-1	Check wiper blades, inserts, and arms; replace wiper blades or inserts.					
4-A-2	Lubricate door latches and hinges.					
4-A-3	Inspect fuel cap and seal.					

**BATTERY - The student will be able to:**

4-B-1	Inspect battery as needed.					
4-B-2	Inspect and clean battery hold-downs; repair or replace as needed.					
4-B-3	Inspect and clean battery and battery cable clamp connections.					

P1	P2	P3
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Total Tasks	31	12	12
Tasks Completed	0	0	0
% of Total Tasks	0	0	0

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C455
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