

NATEF AUTOMOTIVE TASK LIST
AUT 245 – ADVANCED ENGINE PERFORMANCE

TERM: _____

SID: _____

INSTRUCTOR: _____

NAME: _____

For every task in Advanced Engine Performance the following safety requirement must be strictly enforced: Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with local, state, and federal safety and environmental regulations.

<u>Task Code</u>	<u>Task</u>	<u>Priority</u>
<u>C. Ignition System Diagnosis and Repair</u>		
8.C.1	Diagnose (troubleshoot) ignition system related problems such as no-starting, hard starting, engine misfire, poor drivability, spark knock, power loss, poor mileage, and emissions concerns; determine necessary action.	P-2
8.C.2	Inspect and test crankshaft and camshaft position sensor(s); perform necessary action.	P-1
8.C.3	Inspect, test, and/or replace ignition control module, powertrain/engine control module; reprogram as necessary.	P-3
8.C.4	Remove and replace spark plugs; inspect secondary ignition components for wear and damage.	P-1
<u>D. Fuel, Air Induction and Exhaust Systems Diagnosis and Repair</u>		
8.D.1	Diagnose hot or cold no-starting, hard starting, poor drivability, incorrect idle speed, poor idle, flooding, hesitation, surging, engine misfire, power loss, stalling, poor mileage, dieseling, and emissions problems; determine necessary action.	P-2
8.D.2	Check fuel for contaminants and quality; determine necessary action.	P-2
8.D.3	Inspect and test fuel pumps and pump control systems for pressure, regulation and volume; perform necessary action.	P-1
8.D.4	Replace fuel filters	P-1
8.D.5	Inspect, service, or replace air filters, filter housings, and intake duct work.	P-1
8.D.6	Inspect throttle body, air induction system, intake manifold and gaskets for vacuum leaks and/or unmetered air.	P-2
8.D.7	Inspect and test fuel injectors.	P-2
8.D.8	Verify idle control operation.	P-1
8.D.9	Inspect integrity of the exhaust manifold, exhaust pipes, muffler(s), catalytic converter(s), resonator(s), tail pipe(s), and heat shields; perform necessary action.	P-1
8.D.10	Inspect condition of exhaust system hangers, brackets, clamps, and heat shields; repair or replace as needed.	P-1
8.D.11	Perform exhaust system back-pressure test; determine necessary action	P-2

8.D.12	Check and refill diesel exhaust fluid (DEF).	P-3
8.D.13	Test the operation of turbocharger/supercharger systems; determine necessary action.	P-3