

NATEF AUTOMOTIVE TASK LIST
AUT 115 - MANUAL DRIVE TRAIN AND AXLE

TERM: _____

SID: _____

INSTRUCTOR: _____

NAME: _____

**For every task in Manual Drive Train and Axle, 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>A. General Drive Train Diagnosis</u>		
3.A.1	Complete work order to include customer information, vehicle identifying information, customer concerns, related service history, cause, and correction.	P1
3.A.2	Identify and interpret drive train concern; determine necessary action.	P1
3.A.3	Research applicable vehicle and service information, such as drive train system operation, fluid type, vehicle service history, service precautions, and technical service bulletins.	P1
3.A.4	Locate and interpret vehicle and major component identification numbers	P1
3.A.5	Diagnose fluid loss, level, and condition concerns; determine necessary action.	P1
3.A.6	Drain and fill manual transmission/transaxle and final drive unit.	P1
<u>B. Clutch Diagnosis and Repair</u>		
3.B.1	Diagnose clutch noise, binding, slippage, pulsation, and chatter; determine necessary action.	P1
3.B.2	Inspect clutch pedal linkage, cables, automatic adjuster mechanisms, brackets, bushings, pivots, and springs; perform necessary action.	P1
3.B.3	Inspect hydraulic clutch slave and master cylinders, lines, and hoses; determine necessary action.	P1
3.B.4	Inspect and replace clutch pressure plate assembly, clutch disc, release (throw-out) bearing And linkage and pilot bearing bushings (as applicable).	P1
3.B.5	Bleed clutch hydraulic system.	P1
3.B.6	Inspect flywheel and ring gear for wear and cracks; determine necessary action.	P1
3.B.7	Inspect engine block, core plugs, rear main engine oil seal, clutch (bell) housing, transmission/transaxle case mating surfaces, and alignment dowels; determine necessary action.	P1
3.B.8	Measure flywheel runout and crankshaft end play; determine necessary action.	P2
<u>D. Drive Shaft and Half Shaft, Universal and Constant Velocity (CV) Joint Diagnosis and Repair</u>		
3.D.1	Diagnose constant-velocity (CV) joint noise and vibration concerns; determine necessary action.	P1

3.D.2	Diagnose universal joint noise and vibration problems; perform necessary action.	P2
3.D.3	Remove and replace front wheel drive (FWD) front wheel bearing.	P1
3.D.4	Inspect, service, and replace shafts, yokes, boots and CV joints.	P1
3.D.5	Inspect, service, and replace shaft center support bearings.	P3
3.D.6	Check shaft balance and phasing; measure shaft runout; measure and adjust driveline angles.	P2