

NAME _____

SEMESTER _____ YEAR _____

CERRITOS COLLEGE AUTOMOTIVE TECHNOLOGY

AUTOMATIC TRANSMISSION/TRANSAXLE TASK LIST

	II. AUTOMATIC TRANSMISSION/TRANSAXLE A. GENERAL	LIVE WORK	DATE COMPLETED	INSTRUCTOR
1.	Research vehicle service information such as fluid type, vehicle service history, service precautions, technical service bulletins, and recalls including xEVs and/or vehicles equipped with advanced driver assistance systems (ADAS). P-1			
2.	Identify automatic transmission and transaxle components and configurations, including torque converter automatic, dual-clutch automatic (DCT), CVT, and xEV drive. P-1			
3.	Retrieve and record DTCs, OBDII monitor status, and freeze frame data; clear codes and data when directed. P-1			
4.	Inspect transmission fluid condition; check fluid level; inspect for leaks on transmission or transaxle equipped with a dipstick. P-1			
5.	Inspect transmission fluid condition; check fluid level; inspect for leaks on transmission or transaxle not equipped with a dipstick. P-1			
6.	Diagnose transmission/transaxle gear reduction/multiplication concerns using driving, driven, and held member (power flow) principles. P-1			
7.	Diagnose pressure concerns in a transmission using hydraulic principles (Pascal's Law). P-1			
8.	Identify and interpret transmission/transaxle concerns, differentiate between engine performance and transmission/transaxle concerns; determine needed action. P-1			
9.	Diagnose fluid loss and condition concerns; determine needed action. P-1			
10.	Perform stall test; determine needed action. P-3			
11.	Perform lock-up converter system tests; determine needed action. P-2			

12.	Perform pressure tests on transmissions/transaxles equipped with electronic pressure control; determine needed action. P-1			
13.	Diagnose electronic transmission/transaxle control systems using appropriate test equipment and service information. P-1			
14.	Diagnose noise and vibration concerns; determine needed action. P-2			
	II. AUTOMATIC TRANSMISSION/TRANSAXLE B. IN-VEHICLE TRANSMISSION/TRANSAXLE	LIVE WORK	DATE COMPLETED	INSTRUCTOR
1.	Inspect, adjust, and/or replace external manual valve shift linkage, transmission range sensor/switch, and/or park/neutral position switch. P-1			
2.	Drain and replace fluid and filter(s); use proper fluid type per manufacturer specification. P-1			
3.	Perform relearn procedures. P-2			
4.	Inspect, replace/or and align powertrain mounts. P-1			
5.	Inspect for leakage; replace external seals, gaskets, and bushings. P-2			
6.	Inspect, test, adjust, repair, and/or replace electrical/electronic components and circuits. P-1			
	II. AUTOMATIC TRANSMISSION/TRANSAXLE C. OFF-VEHICLE TRANSMISSION AND TRANSAXLE	LIVE WORK	DATE COMPLETED	INSTRUCTOR
1.	Describe the operational characteristics of a continuously variable transmission (CVT). P-2			
2.	Describe the operational characteristics of a hybrid vehicle drive train. P-2			
3.	Describe the operational characteristics of dual-clutch transmission (DCT). P-2			
4.	Remove and reinstall transmission/transaxle and torque converter; inspect engine core plugs, rear crankshaft seal, dowel pins, dowel pin holes, and mating surfaces. P-2			
5.	Inspect, leak test, flush, and/or replace transmission/transaxle oil cooler, lines, and fittings. P-1			
6.	Inspect converter flex (drive) plate, converter attaching bolts, converter pilot, converter pump drive surfaces, converter end play, and crankshaft pilot bore. P-2			

7.	Disassemble, clean, and inspect transmission/transaxle. P-2			
8.	Inspect, measure, clean, and replace valve body (includes surfaces, bores, springs, valves, switches, solenoids, sleeves, retainers, brackets, check valves/balls, screens, spacers, and gaskets). P-2			
9.	Inspect servo and accumulator bores, pistons, seals, pins, springs, and retainers; determine needed action. P-2			
10.	Assemble transmission/transaxle. P-2			
11.	Inspect, measure, and reseal oil pump assembly and components. P-2			
12.	Measure transmission/transaxle end play and/or preload; determine needed action. P-2			
13.	Inspect, measure, and/or replace thrust washers and bearings. P-2			
14.	Inspect oil delivery circuits, including seal rings, ring grooves, and sealing surface areas, feed pipes, orifices, and check valves/balls. P-2			
15.	Inspect bushings; determine needed action. P-2			
16.	Inspect and measure planetary gear assembly components; determine needed action. P-2			
17.	Inspect case bores, passages, bushings, vents, and mating surfaces; determine needed action. P-2			
18.	Diagnose and inspect transaxle drive, link chains, sprockets, gears, bearings, and bushings; determine needed action. P-2			
19.	Inspect measure, repair, adjust or replace transaxle final drive components. P-2			
20.	Inspect clutch drum, piston, check-balls, springs, retainers, seals, friction plates, pressure plates, and bands; determine needed action. P-2			
21.	Measure clutch pack clearance; determine needed action. P-2			
22.	Air test operation of clutch and servo assemblies. P-2			
23.	Inspect one-way clutches, races, rollers, sprags, springs, cages, retainers; determine needed action. P-2			