

Student Name _____ Instructor Name _____

High School or Vocational Center _____ Grade _____

**COMPETENCY CHECKLIST FOR ADVANCED TECHNICAL PLACEMENT
Automotive Technology**

**AT 114
Automotive Power Plants (Engine Rebuilding)
3 Credit Hours**

This course includes the proper procedures and machine operations necessary to service completely, overhaul, repair or rebuild the automotive engine. Theory of engine operation and construction are also dealt with.

To meet the standards for articulated credit, the student will demonstrate competency in tasks listed below. Competency standards will be determined by the high school instructor.

Task	Satisfactory	Unsatisfactory
DEMONSTRATE AN UNDERSTANDING		
<i>The student will be able to:</i>		
Demonstrate an understanding of internal engine components and operation		
DEMONSTRATE PROFICIENCY IN SERVICE		
<i>The student, by using instructor instruction, shop manuals, and appropriate shop safety practices will be able to:</i>		
Clean engines		
Remove and replace motor mounts		
Check valve guides for wear		
Reface valves and seats		
Perform cylinder balance tests		
Perform cylinder compression tests		
Perform cylinder leakage tests		
Determine source(s) of excess noise		
Determine sources(s) of oil/coolant loss		
Determine source(s) of excess noise		
Determine cause(s) of overheating		
Check the engine oil pressure		
Remove and replace core plugs		

Task	Satisfactory	Unsatisfactory
Inspect, remove, and replace flywheels and ring gears		
Remove and replace engine assemblies		
Remove and replace oil pans		
Remove and replace oil pumps		
Clean cylinder blocks, oil passages, and pistons		
Inspect blocks for warpage		
Measure and inspect engine components for proper tolerances		
Remove and replace crankshafts, mains, and rod bearings		
Remove and replace camshafts and bushings		
Remove and replace pistons and rings		
Remove ridges and deglaze cylinder walls		
Bore blocks and finish as needed		
Inspect, refinish, or replace rods as needed		
Remove and replace front and rear oil seals		
Remove and replace intake and exhaust manifolds		
Remove, clean, inspect, and replace cylinder heads; inspect heads for cracks and warpage		
Test and replace hydraulic lifters		
Remove and replace timing chains, belts, and gears		
Test valve springs		
Adjust valve lifters		
Replace rocker arm assemblies		
Change oil and oil filters		

Instructor's Signature _____ Date _____