

Student Name _____ Instructor Name _____

High School or Vocational Center _____ Grade _____

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

**AT 212
Alignment and Suspension
3 Credit Hours**

This course covers theory, repair, and adjustment of steering and suspension systems as well as the operation of modern four-wheel alignment and wheel balancing equipment.

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>		
Use hand tools		
Use power tools		
Use and install fasteners		
Use and apply English and metric skills		
Demonstrate an understanding of steering and suspension geometry		
Demonstrate an understanding of the function of steering and suspension system components		
Demonstrate an understanding of manual and power steering operation		
DEMONSTRATE PROFICIENCY IN SERVICE		
<i>The student, by using instructor instruction, shop manuals, and appropriate shop safety practices will be able to:</i>		
Diagnose suspension problems		
Diagnose wheel/tire vibrations, shimmy and tramp		
Diagnose steering problems		
Lubricate suspension, steering gear and linkage		
Check manual steering gear fluid level		
Inspect steering systems		
Inspect suspension systems		

Task	Satisfactory	Unsatisfactory
Inspect and test shock absorbers		
Check power steering fluid level		
Rotate wheels and tires		
Balance wheels		
Service wheel bearings and grease seals on non-drive axles/spindles		
Remove and replace spindles and ball joints		
Remove and replace shock absorbers and mountings		
Measure and adjust torsion bar height		
Remove and replace coil springs/torsion bars		
Remove and replace control arms and bushings		
Remove and replace steering linkage components		
Remove and replace steering dampers		
Remove and replace rear suspension parts		
Remove and replace manual/power steering gear assemblies		
Check tow-wheel alignment		
Rebuild MacPherson type struts		
Overhaul recirculating ball manual gears		
Rebuild rack and pinion manual gears		
Remove and replace power steering pumps		
Rebuild power steering pumps		
Overhaul integral steering gears		
Rebuild rack and pinion power steering assembly		
Check and perform four-wheel alignment		
Inspect, diagnose and repair air bag systems		
Inspect, diagnose and repair steering columns both tilt and telescopic		

Instructor's Signature _____ Date _____