

Student Name _____ Instructor Name _____

High School or Vocational Center _____ Grade _____

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

**AT 120
Electrical Systems I
3 Credit Hours**

A study of fundamentals of electricity, ignition (Electronic Computer Control including DIS), cranking and charging systems. Basic electrical test equipment is also covered.

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>		
Describe electrical terms, Ohm's law, current flow and magnetism		
Demonstrate an understanding of series and parallel circuits		
Demonstrate an understanding of advanced electronics concepts		
Demonstrate an understanding of electronic schematic diagrams and diagnostic techniques		
Demonstrate an understanding of electrical wire repair procedures		
Demonstrate an understanding of electrical transistor concepts and components		
Demonstrate an understanding of electronic microprocessor concepts, functions and components		
DEMONSTRATE PROFICIENCY IN SERVICE		
<i>The student, by using instructor instruction, shop manuals, and appropriate shop safety practices will be able to:</i>		
Use and apply basic electrical and electronic test equipment and meters		
Perform power checks with test lights		
Perform continuity tests		

Task	Satisfactory	Unsatisfactory
Measure voltage drop, current flow and resistance in a circuit or component with a multi-meter		
Locate an open circuit and a short circuit		
Remove and replace light bulbs		
Test, remove and replace fuses and circuit breakers		
Inspect and repair lighting systems		
Diagnose, repair or replace turn signal and stoplight switches		
Test and replace electrical system switches		
Diagnose, repair, or replace power window and power seat systems, including motors		
Diagnose and service windshield wiper/washer systems		
Test and replace sending units		
Diagnose engine malfunctions		
Diagnose, repair or replace horn systems		
Diagnose, repair or replace clock systems		
Diagnose, repair or replace warning buzzer		
Test and replace instrument panel units		
Diagnose and service cruise control systems		
Check, remove and replace radios		
Test and repair automotive alarm system components		

Instructor's Signature _____ Date _____