

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**

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 | | |
| Measure voltage drop, current flow and resistance in a circuit or component with a multimeter | | |
| Locate an open circuit and a short circuit | | |

| Task | Satisfactory | Unsatisfactory |
|--|---------------------|-----------------------|
| 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 _____