Course Prefix and Number: AUT 242  
Credits: 3

Course Title: Automotive Electricity II

Course Description: Introduces electricity and magnetism, symbols and circuitry as applied to alternators, regulators, starters, lighting systems, instruments and gauges, and accessories. Part II of II. Prerequisite: AUT 241. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

General Course Purpose: To examine the basic theory, operation, and repair of charging, starting, ignition, and accessory systems found on various automotive vehicles. Safety will be emphasized.

Course Prerequisites and Co-requisites:
Prerequisite: AUT 241

Student Learning Outcomes:
Upon completing the course, the student will be able to
a. Identify and locate all vehicle control modules;

b. Identify power distribution centers fuse and relay locations, body grounding locations, and junction block locations;

c. Demonstrate removal and replacement of junction blocks and body control modules;

d. Demonstrate diagnostics on the electrical systems using manufacturers service manuals and technical bulletins;

e. Demonstrate logical electrical system diagnosis and repair;

f. Discuss the various electronic memory savers available; and

g. Demonstrate the ability to use electrical diagrams and schematics.

Major Topics to Be Included:

a. Circuit components

b. Switches

c. Electrical test meters

d. Troubleshooting circuits

f. Electronic features (audio systems, battery protection, central door locking, memory seats and mirrors, data link connectors, heated seats, ignition off-draw, engine coolant temperature sensors, etc.)

g. Harness connectors

h. Interior lighting and exterior lighting

i. Power door locks

j. Drivers information systems

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