

**J. Sargeant Reynolds Community College
Course Content Summary**

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. 3 credits

General Course Purpose:

To examine the basic theory, operation, and, (m5.9 (p)10.5 a(i)2.6 (m5.9 op)10.5 r(a)(c) 2-cha 15.9 gT)--(i)2

Prerequisite: AUT 241

Student Learning Outcomes:

Upon completing the course, the student will be able to

- Identify and locate all vehicle control modules;
- Identify power distribution centers fuse and relay locations, body grounding locations, (t)-6 outiica(t)-6(y)8 and junction block locations;
- Demonstrate removal and replacement of junction blocks and body control modules;
- Demonstrate diagnostics on the electrical systems using manufacturers service manuals and technical bulletins;
- Demonstrate logical electrical system diagnosis and repair;
- Discuss the various electronic memory savers available; and
- Demonstrate the ability to use electrical diagrams and schematics.

Major Topics to Be Included:

- Circuit components
- Switches
- Electrical test meters
- Troubleshooting circuits
- Electronic features (audio systems, battery protection, central door locking, memory seats and mirrors, data link connectors, heated seats, ignition off-