AUT 101 : BASIC ELECTRICITY FOR AUTOMOTIVE

Transcript title

Basic Electricity-Automotive

Credits

2

Grading mode

Standard letter grades

Total contact hours

60

Lab hours

60

Prerequisites with concurrency

AUT 106.

Course Description

Provides understanding of fundamental principles of electricity. Covers basic electrical quantities, Ohm's law, power, series, and parallel circuits, magnetism, electromagnetism and an introduction to DC-current troubleshooting. Introduces student to the use of a digital multimeter and oscilloscope. Student will also be introduced to electrical schematics. A self-paced course.

Course learning outcomes

1. Solve basic electrical problems for series and parallel circuits.
2. Demonstrate correct voltage, current, and resistance measurements on series and parallel circuits using a digital multimeter.
3. Identify and interpret the basic symbols of an electrical schematic.
4. Demonstrate proper and safe work habits and procedures when exposed to electrical circuits.
5. Demonstrate proper troubleshooting procedures for vehicle electrical and electronic systems.

Content outline

1. Electrical Fundamentals
2. Electrical Circuits and Ohm's Law
3. Series, Parallel, and Series - Parallel Circuits
4. Sample ETM section
5. Using Electrical Resource Guide
6. Using Hand-On Vehicle Electronics Troubleshooting Training Program