

COURSE NUMBER: 453
COURSE TITLE: Electronic Fundamentals
COURSE LENGTH: Semester, One Credit
PREREQUISITE: Electricity Fundamentals & approval of instructor
GRADE LEVEL: 10, 11, or 12

COURSE DESCRIPTION:

Included in this course will be the study of charging circuits (generators and alternators), starting ignition, lighting and accessory circuits. Students will assemble, inspect, test and disassemble various components found in DC electrical circuits through hands on experience labs. Electrical troubleshooting will be taught as part of this course. Students will use Global Positioning and Geographic Information systems equipment. This class is intended for students who want to go into electronic equipment service. **This course may articulate with some community colleges.**

Students enrolled in this class are eligible for FFA membership.

COURSE RATIONALE:

This course is designed to teach in depth DC electrical circuits and various components which make up mobile equipment systems.

METHOD OF INSTRUCTION:

The students will study, complete labs, and take tests as they progress through the information packets. The workbook has lab setups to reinforce the reading material before the student takes the test on each unit. Class discussion will be occur at the start and end of each unit.

ASSESSMENT:

1/2 - tests; 1/4 - workbook; 1/4 - projects

CRITICAL OBJECTIVES:

The students will learn to work with the following components:

1. diodes
2. transistors
3. capacitors
4. coils
5. motors
6. generators
7. circuitry
8. GPS/GIS