



COURSE SYLLABUS

Programs in Technology Education

General H.H. Arnold High School

I. COURSE NUMBER AND TITLE: **VEE301, Digital Electronics I**

II. CREDIT: 1 Semester

III. PREREQUISITE: Students enrolling in this course must have normal color vision. They should also have completed, or are currently enrolled in, General Math. Exceptions granted only through consent of the instructor.

IV. COURSE DESCRIPTION: Applied Electricity and Electronics is a dynamic course that introduces 9th through 12th grade students to the world of electricity and electronics technology. Students progress at their own pace while studying and completing tasks independently. Hands-on activities, supplemented with demonstrations, computer aided instruction, and lectures teach students various skills and introduces them to occupational areas of electronics technology. Performing laboratory experiments, students will gain first hand knowledge of the basic concepts of circuitry, wiring, and technology in all areas of direct current electricity. This course is the entry point into the electronics technology curriculum.

V. COURSE OBJECTIVES:

Upon completion of this course, students should be able to

1. Maintain safety awareness in the laboratory.
2. Demonstrate the proper use of hand tools and test equipment.
3. Apply the concepts of direct current, alternating current, and magnetism to basic circuits.
4. Follow methods and procedures involved in electrical wiring.
5. Recognize quality in consumer and electronic products.
6. Investigate career opportunities in electronics career fields.
7. Build electronic projects using a solderless breadboard.

VI. COURSE OUTLINE

1. Electricity/Electronics Course Orientation
2. Introduction to Electricity and Electronics Technology
3. Direct Current and Resistance
4. Direct Current Circuits
5. Electronic Circuit Construction

VII. CURRENT TEXTS:

UNDERSTANDING ELECTRICITY AND
ELECTRONICS TECHNOLOGY
by Buban, Schmitt, Carter

FUNDAMENTALS OF AC/DC,
Lab-Volt Lab Manuals

VIII. PREPARED: August 25, 2002