

Bossier Parish Community College
Master Syllabus

Course Prefix and Number: TEED 206

Credit Hours: 3-1-2

Course Title: Electronics Equipment and Repair

Course Prerequisite: TEED 101

Textbook(s): None

Course Description: The use and calibration of electronic equipment such as analog and digital meters, function generators, oscilloscopes, semi-conduct testers, frequency counters, and other test equipment. General troubleshooting techniques from soldering to repair of printed circuit boards.

Learning Outcomes:

At the end of the course, the student will:

- A. interpret and explain proper soldering techniques, circuit layout, and component-failure troubleshooting processes for analog and digital electronic circuits;
- B. explain and demonstrate use of test instruments including multimeter, component testers, and oscilloscope to measure current, voltage and operational parameters of electrical circuits; and
- C. build electronic circuits based upon schematic diagrams and demonstrate proper layout and soldering of components.

To achieve the learning outcomes, the student will or will be able to:

(The letter designations at the end of each statement refer to the learning outcome(s).)

1. solder and repair printed circuit boards; (A, B, C)
2. build an electronics circuit using parts and printed circuit board; (A, B)
3. list general troubleshooting techniques; (A, B)
4. use transistor checker to check diodes and transistors; (A)
5. use oscilloscope to measure voltage, time, phase, and frequency; (A, B, C)
6. use digital counter to measure time, count events, and determine ratio; (A, B, C)
7. use the function generator to produce sine waves, square waves, and triangular waves; (A, B, C) and
8. use analog and digital meters. (A, B, C)

Course Requirements: Complete all homework assignments, in-class circuit kit(s) fabrication, lecture tests and final exam.

Course Grading Scale:

- 90 – 100 = A
80 – 89 = B
70 – 79 = C
60 – 69 = D
0 – 59 = F

Attendance Policy: The college attendance policy is available at <http://catalog.bpcc.edu/content.php?catoid=5&navoid=369>

Course Fees: This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, software licenses, certification exams, and/or clinical fees.

Nondiscrimination Statement: Bossier Parish Community College does not discriminate on the basis of race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

COORDINATOR FOR SECTION 504 AND ADA

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