

Bossier Parish Community College
Master Syllabus

Course Prefix and Number: ENGR 221

Credit Hours: 3-3-0

Course Title: Circuits

Course Prerequisite: ENGR 100 and MATH 250

Course Prerequisite or Corequisite: MATH 251

Textbook(s) (when applicable): Durbin, Kemmerly and Hart. Engineering Circuit Analysis, 9th edition. McGraw-Hill. ISBN: 9780133254426

Course Description: A fundamental course covering concepts including, units and laws, network theorems, network simplification, phasors, and AC solution of circuits, power and electronic applications.

Learning Outcomes:

At the end of this course, the student will:

- A. demonstrate skills in solving problems involving electrical circuits;
- B. demonstrate skills in designing electrical circuits using various electrical components; and
- C. demonstrate ability to make judgments about safety and reliability in electrical and electronic applications.

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

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

- 1. identify, formulate, and solve engineering problems involving electrical properties and materials; (A, B, C)
- 2. design electrical components and circuits to meet desired needs within constraints of economics, environment, health, and safety; (A, B, C) and
- 3. analyze and interpret data for science and engineering applications in the selection and use of electrical components. (A, B, C)

Course Requirements:

- 1. Complete assigned homework and in-class exercises in problem solving and analysis.
- 2. Complete three unit exams 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://www.bpcc.edu/catalog/current/academicpolicies.html>

Course Fees: N/A

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.

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