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


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

Revised: 04/06/2017
Attendance Policy: The college attendance policy is available at http://www.bpcc.edu/catalog/current/academicpolicies.html

Course Fees: N/A

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