Course Prefix and Number: ENGR 201        Credit Hours: 3-3-0

Course Title: Mechanics of Engineering Materials

Course Prerequisite: ENGR 100 and ENGR 220

Course Co-requisite: None


Course Description: A study of the basic principles which include the stress-strain properties of engineering materials, analysis and design of mechanical members subject to axial loading, torsion, bending, shear and combined loading, pressure vessels, Mohr’s circle, and deflection in beams.

Learning Outcomes:
At the end of this course, the student will:
   A. demonstrate skills in solving problems involving engineering materials;
   B. demonstrate skills in designing building components using material properties; and
   C. demonstrate ability to make judgments about safety factors and potential for overloading material components.

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 materials; (A, B, C)
   2. design structural components to meet desired needs of strength within limits of deflection, elongation and other realistic constraints such as economics, environment, health, and safety; (A, B, C) and
   3. understand professional and ethical responsibilities in the selection and use of materials. (A, B, C)

Course Requirements:
   1. Complete assigned homework.
   2. Complete a minimum of two 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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