Course Prefix and Number: ENGR 222  
Credit Hours: 3-3-0

Course Title: Thermodynamics

Course Prerequisite: ENGR 100, MATH 250 and MATH 251


Course Description: Fundamental concepts, properties of pure substance, work, heat, first and second laws of thermodynamics, entropy, cycle analysis.

Learning Outcomes:
At the end of this course, the student will:
   A. demonstrate an understanding and skills in the use of basic concepts and principles of thermodynamics;
   B. demonstrate knowledge of math, science, and engineering to analyze and design thermal systems; and
   C. demonstrate an ability to identify, formulate, and solve engineering problems.

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. understand and describe the fundamentals and basic concepts of thermodynamics; (A, B, C)
   2. apply the First and Second Laws of thermodynamics to design and analysis thermal systems; (A, B, C) and
   3. analyze, formulate solutions, and solve problems associated with thermal systems. (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

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