

Bossier Parish Community College
Master Syllabus

Course Prefix and Number: ENGR 222

Credit Hours: 3-3-0

Course Title: Thermodynamics

Course Prerequisite: ENGR 101 and MATH 250

Textbook(s) (when applicable): Boles, Cengel. Thermodynamics: An Engineering Approach, 10th edition. McGraw-Hill. ISBN13: 9781266664489

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://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

Angie Cao, Student and Disability Services Specialist

Disability Services, F-254

6220 East Texas Street

Bossier City, LA 71111

Phone: 318-678-6511

Email: acao@bpcc.edu

Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.

Equity/Compliance Coordinator

Teri Bashara, Director of Human Resources Human

Resources Office, A-105

6220 East Texas Street

Bossier City, LA 71111

Phone: 318-678-6056

Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.

May 10, 2024

Revised: 4/13/2022