Course Description:

Thermodynamics deals with energy, which is essential for sustenance of life; thermodynamics has long been an essential part of engineering curricula all over the world. It has a broad application area ranging from microscopic organisms to common household appliances, transportation vehicles, power generation systems, and even philosophy.

The objectives of this course are

- To cover the basic principles of thermodynamics
- To present sufficient engineering examples to give students a feel for how thermodynamics is applied in engineering practice
- The course will cover the following topics (Chapters 1 to 7, and 9 to 11 of the Textbook):
  - Basic concepts of thermodynamic system
    - System, state variables, and properties of gases and liquids
    - First law of thermodynamics and how to apply it to thermodynamic systems
    - Second law of thermodynamics and Entropy
    - Work and heat exchange during reversible or irreversible processes
    - Analysis of the rated power and performance of gas power and vapor and combined cycles, such as internal combustion engines, gas turbines, power plants and refrigerators

Textbook:


Cengel/Boles explore the various facets of thermodynamics through careful explanations of concepts and its use of numerous practical examples and figures, having students develop necessary skills to bridge the gap between knowledge and the confidence to properly apply knowledge.

The media package for this text is extensive, giving users a large variety of supplemental resources to choose from. A Student Resources DVD is packaged with each new copy of the text and contains the popular Engineering Equation Solver (EES) software. McGraw-Hill's new Connect is available to students and instructors. Connect is a powerful, web-based assignment
management system that makes creating and grading assignments easy for instructors and learning convenient for students.

Evaluation:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Assignments</td>
<td>10%</td>
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<tr>
<td>Term-Test 1</td>
<td>25%</td>
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<tr>
<td>Term-Test 2</td>
<td>25%</td>
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<tr>
<td>Final Exam</td>
<td>40%</td>
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Academic Integrity/Plagiarism:

University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, and complicity or plagiarism. In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in Grade F. Students are expected to do their assignments individually unless specified otherwise.

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Dropping a Class

I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class. Friday, November 15, 2013 is the last day to drop a class with an automatic grade of “W.”

Safety

The safety of students, faculty, staff and visitors to the ET laboratories is a major issue. You must follow safety procedures and use personal protective equipment as required.

Food and Drinks

Eating/drink is not permitted in the class.

Classroom/professional and ethical behavior

Students are expected to behave in an ethical and professional manner in all class and lab activities. If you feel uncertain about a particular activity, please speak to me BEFORE problems arise. Ethical behavior is a requirement for passing this course.
**Academic Advising**
The College of Science and Technology requires that students meet with an Academic Advisor as soon as they are ready to declare a major. The Academic Advisor will set up a degree plan, which must be signed by the student, a faculty mentor, and the department chair. The College's Academic Advising Center is located in Center for Instruction (CI 350), and can be reached at 825-5777.

**Grade Appeals**
As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

**Disabilities Accommodations**
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101. If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.