Syllabus
Engineering Thermodynamics I
ME2322 Section-TBA

Instructor Information
Instructor: Prof. Anderson
Office Location: MEN 215 Office Hours: TT 8:00-9:30 & 1:00-2:00

Course Resources
Title: Thermodynamics: An Engineering Approach, Ed. 8  Author: Cengel and Boles
Access to MH CONNECT and LearnSmart online products are required for some sections.
Publisher: McGraw-Hill Resource is required
Title: Course home page Author: Your Instructor
URL: MWF Classes - aln.coe.ttu.edu/Anderson/thermoi/schedule-mwf.html or
TTR: Classes - aln.coe.ttu.edu/Anderson/thermoi/schedule-tt.html Resource is required

Course Information
Title: Engineering Thermodynamics I Course #: ME 2322
Prerequisites: MATH 1352 & PHYS 1408
Description: Application of thermodynamic principles to engineering systems, basic principles, properties of substances, and mass, energy, and entropy balances.
Goals: Students will learn
1. Nomenclature and terms used in thermodynamics,
2. How to determine thermodynamic properties of engineering substances,
3. How to apply the conservation of mass principle to engineering systems,
4. How to apply the conservation of energy principle to engineering systems,
5. How the performance of engineering systems is limited, and
6. How to apply the various principles to typical engineering systems.
Requirements: Daily Assignments are listed on the daily schedule which may be accessed through the COURSE HOME PAGE. These assignments are tentative and subject to change.

Instructor Option Grade
Each instructor will inform students how this grade is to be earned. Typically activities like homework, quizzes, projects, and etc. are used for this purpose.

Grading
Instructor Option – 20%
Online Homework – 10%
Thermo Knowledge Network* – 10%
3 90-minute departmental examinations – 60% (20% each)
Final departmental examination – 20%
Final grade scale will not exceed: 90-A, 80-B, 70-C, 60-D, and <60-F
15% will be added to final online exercise grades to adjust for internet connectivity and software issues

* 2% points for each node after 2 minutes before submission.

Hard Copy Homework Format:
1. Problem statement summary including system
2. System sketches, state diagrams (when appropriate)
3. Conditions
4. Applicable physical laws
5. Properties
6. Calculations with clearly identified answers

**Instructor Expectations**
1. Read assignments before class
2. Complete concepts while reading and submit by start of class on day it is assigned
3. Be prepared to discuss the assignments in class

**Examinations**
All course sections take the same common departmental examinations.

Some examination questions will require you to use the format presented in the Hard Copy Homework Format.

Grades may be appealed up to one week following the issuance of the grade. After one week, grades will not be changed.

Only ME 2322 examination booklet, pencil, and calculator may be used during any examination. Professionals do not cheat or partake in similar unethical practices. So, in order to promote professionalism, if you are caught using homework, old test materials, or participating in cheating in any manner during an examination, your test will be taken from you, you will be asked to leave, your grade for the examination will be zero and it is required by TTU policy that the incident be reported to the Dean of Students.

According to TTU policy, Exam excuses can only be granted for family emergency or medical issues with proper documentation (funeral announcement, doctor's excuse, and etc.) provided to the instructor.

**Learning Outcomes and Assessment**
Upon completion of the course, students will be able to:
1. Determine the thermodynamic properties of many substances using tables and equations
2. Develop in-depth understanding of work and heat
3. Perform mass and energy balances for closed, steady-state, and transient systems
4. Conduct Second Law analysis of systems using entropy and entropy generation
5. Analyze basic gas and vapor power cycles
6. Organize and logically solve thermodynamics problems

Achievement of these outcomes will be assessed by:
1. homework assignments
2. comprehension evaluation (pre-lectures)
3. examinations

**Honor Code - TTU ME Department**
“[I hereby certify that I will follow the Code of Student Conduct as defined by the University and the Department, that I will not cheat nor will I condone cheating.”

**Professional Demeanor**
1. Students are expected to assist in maintaining a classroom environment that is conducive to learning. In order to assure that all students have the opportunity to gain from time spent in class, unless otherwise approved by the instructor; students are prohibited from engaging in any form of distraction. Inappropriate behavior in the classroom shall result, minimally, in a request to leave the class. Disruptive behavior
includes, but is not necessarily limited to: leaving cell phones and beepers on, eating and drinking in the classroom, excessive tardiness, leaving the lecture early, making offensive remarks, missing deadlines, prolonged chattering, reading newspapers during class, sleeping, side-bar conservations, shuffling backpacks or notebooks, demanding special attention.

2. It is the aim of the faculty of Texas Tech University to foster a spirit of complete honesty and a high standard of integrity. The attempt of students to present as their own any work that they have not honestly performed is regarded by the faculty and administration as a serious offense and renders the offenders liable to serious consequences, possibly suspension. **Specifically, plagiarism (cheating) of examinations is a serious offense and will result in a score of 0 on the examination, possible failing the course, and possible suspension from the program.**

**Holy Day Observance:** A student who is absent from class for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence with no penalty.

**Officially Approved Trips:** A student who is absent from class due to representing the university on an officially approved trip is responsible for material missed and shall be allowed to make up examinations with no penalty. The university official responsible for the trip should notify the instructor in advance of the student's departure.

**Disability Accommodation:** Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.