Syllabus
Engineering Thermodynamics I
ME2322 Section-TBA

Instructor Information
Instructor: TBD  Email: TBD  
Office Location: TBD  Office Hours: TBD

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

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%  
3 50-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 and software issues.

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 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 non-programmable calculator may be used during any examination. If caught using homework, old test materials, or cheating in any manner, your test will be taken from you, you will be asked to leave, your grade for the examination will be zero and the incident reported to the Dean of Students.

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.

**No programmable scientific calculators will be allowed during testing.** Calculator covers shall not be used at all. Also no cell phones will be out and backpacks will be left at the front of the room and hats shall be removed.

Only NCEES approved calculators will be permitted during tests and your test will be collected and your grade will be a zero if you are caught using a non-approved calculator. The approved calculators include the following:

- Hewlett Packard – HP 33s and HP 35s models
- Casio – FX-115 MS, FX-115 MS Plus, FX-115 MS SR, FX-115 ES, and FX-115 ES Plus

If you are unsure about your calculator, it is your responsibility to check with the instructor for approval.

**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 classroom accommodations in order to meet course requirements should contact the instructor as soon as possible. Students should present appropriate verification from Student Disability Services. No requirement exists that accommodations be made prior to completion of this approved university procedure. Accommodated students will take their examination at the Testing Center.