Instructor: Prof. Jon Longtin, 107 Light Engineering Building, 2-1110

Time and Location: Mo, We, Fr 10:40–11:35am, W4525 Melville Library
Recitation 02: Thur 11:20–12:15 pm, Chemistry 128
Recitation 03: Mon 2:20–3:15 pm, Chemistry 128

Please note: I will not support the course in any way through e-mail. This includes concepts and clarifications, homework questions, exam dates/times, administration, etc. All such requests will be ignored. Please ask questions in class, visit Blackboard, and/or come to office hours for questions.

Office Hours: Mon, noon – 2pm, Thur, 1–3pm

Teaching Assistant: Mr. Di Liu
Office hours: Tues and Wed 3pm–5pm
Location: Heavy Engineering Building Room 203 B.
Note: please respect the TA’s office hours; like you they are students with a demanding schedule. Also, please don not email him; rather see him in person if you need help. Thank you.

Textbook is required.

Assignments: Homework problems will be assigned every week or two. The solutions will be posted on Blackboard a week later after the deadline. NO LATE HOMEWORK WILL BE ACCEPTED, except under documented emergencies.

Exams: Two midterm exams and a final exam.
Grading: First midterm exam: 20%, Second midterm: 25%, Homework: 20%, Final: 35%.

Course Objectives: The emphasis in this course will be on learning the fundamentals of thermodynamics and in applying them to solve real-world engineering problems. Key topical areas include the first and second laws of thermodynamics, the concept of entropy, theoretical and practical maximum efficiencies for heat engines, and refrigeration, and the basics of gas power and refrigeration cycles.

Tips for success: Practice makes perfect and if you read the text, study the example problems, do the assigned problems (and others if you have time), and ask questions if you are not sure about any of the above you should do well in this course. This material is cumulative; if you fall behind you will find it hard to understand what is being discussed in class. Thermodynamics is a very deceptive topic to study: the math is not difficult and the concepts, when isolated, can seem trivial, however when combined together things can get very confusing. The only real way to overcome this is by simple exposure to as much of the material as possible.

Prerequisites by Topics: Concept of mechanical energy and work, Multivariable calculus
Topics: Chapters 1–7, portions of 9, 10, and 11 (time permitting)
**Americans with Disabilities Act**
If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room 128, (631) 632-6748. They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential. Students requiring emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information, go to the following web site [http://www.ehs.sunysb.edu/fire/disabilities/asp](http://www.ehs.sunysb.edu/fire/disabilities/asp).

**Statement on Academic Dishonesty**
Academic dishonesty is an extremely serious offense and will not be tolerated in any form. Academic dishonesty in general is the presentation of intellectual work that is not originally yours. Examples include, but are not limited to, copying or plagiarizing class assignments including homework, reports, designs, and other submitted materials; copying or otherwise communicating answers on exams with other students; bringing unapproved aids, either in physical (written) or electronic form to an exam; obtaining copies of an exam prior to its administration, etc. Academic dishonesty violates both the ethical and moral standards of the Engineering profession and all infractions related to academic dishonesty will be prosecuted to the fullest via the CEAS CASA committee. For you, the honest student, academic dishonesty results in lower class curves, hence a depression in your GPA and class standing, while cheapening the degree you earn.

**Allowed Calculators**
Following the Mechanical Engineering Department’s mandatory calculator policy, only the following calculators will be allowed to be used on the midterm and final exams. There will be no exceptions. This list of calculators is identical to that allowed for the National Council for Examiners for Engineering and Surveying (NCEES) Fundamentals of Engineering (FE) exam that many of you will take in your senior year, as well as the Professional Engineering (PE) exam that you may take several years from now. The sooner you become comfortable on one of these calculators, the better. If you have any questions on this policy please feel free to contact me. The NCEES policy on calculators can be found here: [http://www.ncees.org/exams/calculators/](http://www.ncees.org/exams/calculators/).

**Casio:** All fx-115 models. Any Casio calculator must contain fx-115 in its model name.

**Hewlett Packard:** The HP 33s and HP 35s models, but no others.

**Texas Instruments:** All TI-30X and TI-36X models. Any Texas Instruments calculator must contain either TI-30X or TI-36X in its model name.