Instructor: Prabakaran Rajamanickam, prajaman@eng.ucsd.edu, EBU II 563
Lectures: Mo, Tu, We & Th 9:30am-10:50am, WLH 2111
Office Hour: Tu 8:00am-8:50am, WLH 2111

Teaching Assistant: Reiley Weekes, rweekes@eng.ucsd.edu
Problem session: Th 8:00am-8:50am, WLH 2111
Office Hour: Mo 11:00am-11:50am, EBU II 105

Course Description: Fundamentals of engineering thermodynamics: energy, work, heat, properties of pure substances, first and second laws for closed systems and control volumes, gas mixtures. Application to engineering systems, power and refrigeration cycles, combustion. Renumbered from MAE 110A. Students may not receive credit for MAE 11 and MAE 110A. Prerequisites: PHYS 2C and CHEM 6A.


Topics:
1. Basic concepts, energy, work, heat. Zeroth law, First law (closed system)
2. Ideal gas, First law (open system), Second law, Carnot cycle, entropy.
3. Applications of second law, Gas-power cycles
4. Phase transition, Vapor-power cycles
5. Thermodynamic relations, ideal gas mixtures, chemical reactions and combustion

Course Website: http://asanchez.ucsd.edu/teaching/mae-11/

Grading Policy: 20% HW, 40% Midterm, 40% Final

Exams:
- Midterm, July 18, Thursday 9:30-10:50 am
- Final, August 2, Friday 8:00-10:59 am

Academic integrity: All students are expected to adhere to the UCSD Policy on Integrity of Scholarship. You may discuss homework problems, but must prepare and submit homework reports on your own.

Disability Resources: Students requesting accommodations for this course due to a disability must provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD) which is located in University Center 202 behind Center Hall. Students should present their AFA letters to Faculty (please make arrangements to contact me privately) and to the OSD Liaison (Regina Ready) in the department at least two weeks prior to an exam to ensure that accommodations may be arranged.