CHEM273 Syllabus

Spring 2007

Instructor: Professor Lynn Russell (lmrussell@ucsd.edu).
Office Hours: Tu/Th 15:20-15:50 after class in Peterson, or by arrangement.
Office: SIO/Nierenberg Hall 343, 534-4852 (Admin. Asst. Andrea Fincham: 534-0312).
Lecture: Tuesdays and Thursdays 14:00-15:20, Peterson Hall Room 103.
Teaching Assistant: Lelia Hawkins (lnahid@ucsd.edu), Keck/OAR 228, 534-6856.
Office Hours: Mondays 15:00-15:50, Wednesdays 17:00-17:50 at Espresso Roma.
Discussion Section 1: Mondays 14:00-14:50, Warren Lecture Hall 2115.
Discussion Section 2: Wednesdays 16:00-16:50, Warren Lecture Hall 2115.

Course Topics and Schedule:

1. Atmospheric Structure (for Midterm 1: Ch. 4, 10, 2, 3, 5)
    a. Radiation
    b. Stratospheric Chemistry
    c. Lifetimes
    d. Composition, Sources and Sinks
2. Tropospheric Chemistry (for Midterm 2: Ch. 6, 8, 9)
    a. Global Biogeochemical Cycles
    b. Air Pollution
    c. Tropospheric Chemistry
3. Climate Change (Ch. 7, 1)
    a. Clouds and Precipitation
    b. Measuring Atmospheric Composition
    c. Global Warming and Climate Change

Class Web-page: http://aerosols.ucsd.edu
Reserves Web-page: http://reserves.ucsd.edu/
Required Textbook:
Peter Hobbs, *Introduction to Atmospheric Chemistry*, Cambridge University Press, 2000.
Recommended/ Reserved Textbooks:
Barbara Finlayson-Pitts and James Pitts, Jr., *Chemistry of the Upper and Lower Atmosphere: Theory, Experiments, and Applications*, Academic Press, 2000.
John Seinfeld and Spyros Pandis, *Atmospheric Chemistry and Physics: From Air Pollution to Climate Change*, Wiley Interscience, 1997.
John Houghton, *Global Warming, The Complete Briefing, Third Edition*, Cambridge University Press, 2004.
Peter Hobbs, *Basic Physical Chemistry for the Atmospheric Sciences*, 2nd Edition, Cambridge University Press, 2000.

Grading
First Midterm 20% (Thursday, April 26: 14:00-15:20)
Second Midterm 25% (Tuesday, May 22: 14:00-15:20)
Final 30% (Wednesday, Jun 13: 15:00-18:00)
Peer-Reviewed Article and Class Presentation 20%
Other (discussion, quizzes) 10%

Problem Sets:
Recommended problems: **ALL** problems in the covered Chapters from the *Introduction*

to Atmospheric Chemistry textbook. You are not required to turn in the problems; however it is strongly recommended that you work on these problems to check your understanding of the material presented and to prepare for the examinations.

Exams:
Midterm examinations will be given during lecture time on April 26 and May 22. The final examination is scheduled for **Wednesday June 13, 2007 (15:00-18:00).** Make-up exams are not possible, and exam locations will only be changed for OSD clients or active duty military assigned out of state during exams. Five or more quizzes will be given, but only the four (4) with the highest scores will be taken into consideration for the final grade. The quizzes will deal with material being covered in class during the corresponding week (as well as necessary related material and assigned reading). The time for the quizzes will not be announced. Quizzes will be held either during the lecture time or during the discussion section. All exams and quizzes must be written in ink.

Plagiarism and Cheating
Plagiarism (presenting the language, ideas, or thoughts of another as one's original work) will not be tolerated in this class and will be dealt with according to the policies dictated by the University (University policies can be found in the UCSD Catalog). If a paper is found to contain material copied from another source without proper reference, the student will receive a grade of F for the entire course. Anyone cheating on an exam will receive a grade of F for the entire course.
NOTE: The topics covered in this course are based on concepts that you have learned in other courses. You will be expected to master a large volume of material. One key to success is to not fall behind in your work. Attendance will not be taken but is highly recommended since missing a class can result in a lack of understanding of course material in future classes. Also, some material presented and discussed in class might not be covered in the textbook with the same level of detail.

A few "words to the wise":
(1) If you miss a midterm, **you will get a zero** so the final will count more (even if you have a legitimate reason for missing the midterm such as severe illness, a death in the family, etc). If you miss the first midterm and then suddenly cannot take a subsequent midterm due to severe illness, a death in the family, etc., **you will get a zero on both midterms** and thus be forced to drop the course. Missing a midterm is a risky gamble.
(2) If you miss the final, **you will get a zero** unless you are seriously ill and can present proof in the form of a hospital bill or police report from an auto accident. In these special cases, your final grade will be determined solely from your midterm scores without dropping any of the two scores. **Off-site or makeup finals will only be given to active members of the armed services working abroad during finals week.**
(3) Midterms and the final will never be given except at the scheduled times and places (or at OSD). I will happily and gratefully make exceptions for soldiers called up for out of state active military duty.
(4) The following will not excuse a midterm or final: (a) Athletic engagements, (b) Special Olympics or similar events, (c) Social/family commitments, (d) Employment obligations, (e) Political Campaigning, (f) Over-sleeping, (g) Car problems; (h) Child care. **If you have a known or potential conflict**, please take the class next year.
(5) The final **will not** be rescheduled for students who have 3 finals in one day. Our final is now scheduled for **Wednesday, June 13: 3-6 pm.** Just to repeat one more time: Students must take their midterms and final at the required time. **Off-site or makeup finals will only be given to active members of the armed services working abroad during finals week.**