Objective: Introduction to the fundamentals of thermodynamics and chemical kinetics.

Time: 12:30 - 1:20 PM (MWF)

Classroom: PHSC 108

Instructor: Dr. Chuanbin Mao (http://chem.ou.edu/Details/Chuanbin-Mao.html)

Office: CHB 311  E-mail: cbmao@ou.edu

Office Telephone: 325-4385

Office Hours: Friday 1:30-4:30 pm.


A. Lecture Schedule:

Chapter 1: The Nature of Physical Chemistry and the Kinetic Theory of Gases.
August 24, 26, 28, 31, September 2, 4

Chapter 2: The First Law of Thermodynamics.
September 9, 11, 14, 16, 18, 21, 23, 25

Chapter 3: The Second and Third Laws of Thermodynamics.
September 28, 30, October 2, 5, 7, 9, 12, 14, 19

Exam 1: Chapter 1 – 3 (October 21, Wednesday, 7:00 pm – 9:00 pm)

Chapter 4: Chemical Equilibrium.
October 21, 23, 26, 30, November 2, 4

Chapter 6: Phases Equilibria.
November 6, 9, 11, 13

Chapter 9: Chemical kinetics I.
November 16, 18, 20, 23

Exam 2: Chapter 4, 6, 9 (November 23, Monday, 7:00 – 9:00 pm)

Chapter 10: Chemical kinetics II.
November 30, December 2, 4, 7, 9, 11

Final: Chapter 1, 2, 3, 4, 6, 9, 10 (December 15, Tuesday, 1:30 pm - 3:30 pm)

NO CLASS DAY:

September 7 (Monday) Labor day

October 16 (Friday) Student Holiday

October 28 (Wednesday) Instructor Out of Town for Invited Talk

November 25 (Wednesday) and 27 (Friday) Thanksgiving Holiday
B. Course Grading Scheme:

1. Homework Assignments (0%): Homework will be assigned regularly. It is important that you work on all of the assigned problems. Some problems from homework assignments will be used in an examination with minor numerical changes or without any changes. Solutions to homework will be posted within one week.

2. Quiz (10%): A 10-minute quiz will be given on Monday regularly. The questions in the quiz are based on homework assigned and course materials covered in the previous week. Each quiz will count 1% in the final score with the maximum total score not to exceed 10%. Please bring your own calculator. **NO MAKE-UP QUIZ WILL BE GIVEN.**

3. Examination (60%): There are two 2-hour examinations. Each examination will contribute 30% to the final score. You can only use the information provided on the examination paper. Please bring your own calculator. **NO MAKE-UP EXAMINATION WILL BE GIVEN.**

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<thead>
<tr>
<th>Date &amp; Time</th>
<th>Chapters</th>
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<tbody>
<tr>
<td>October 21, Wednesday, 7-9 pm</td>
<td>1, 2, 3</td>
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<tr>
<td>November 23, Monday, 7-9 pm</td>
<td>4, 6, 9</td>
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4. Final Exam (30%): The final examination will be comprehensive and covering all of the course materials. You can only use the information provided on the examination paper. Please bring your own calculator. **NO MAKE-UP FINAL EXAMINATION WILL BE GIVEN.**

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<thead>
<tr>
<th>Date &amp; time</th>
<th>Chapters covered</th>
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<tbody>
<tr>
<td>December 15, Tuesday, 1:30 pm - 3:30 pm</td>
<td>1, 2, 3, 4, 6, 9, 10</td>
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5. Final Grade: The minimum final score for a GUARANTEE ‘A’ is 90%; ‘B’ is 80%; ‘C’ is 70%; ‘D’ is 60%. The grade will be ‘F’ if the final score is below 60%.

6. Grading Errors: All grading mistakes have to be resolved within one week after the homework assignments or examinations are returned to the students. Grading mistakes found in the final examination have to be resolved immediately with the instructor.

   Solutions to examinations will be posted on the web within a week after they are graded.

C. University Policies Regarding Reasonable Accommodation and Codes of Behavior:

The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the instructor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166, phone 405/325-3852 or TDD only 405/325-4173. Each student should acquaint her or him self with the University's codes, policies, and procedures involving academic misconduct, grievances, sexual and ethnic harassment, and discrimination based on physical handicap.
D. Plagiarism and Academic Misconduct:

Students engaging in academic misconduct (including cheating, plagiarism, and any other action that may improperly affect evaluation) will be subject to sanctions in accordance with the Norman Campus Academic Misconduct Code. I routinely recommend "F" for the course and expulsion from the University for all such violations.

Disclaimer: I reserve the right to change any information in this syllabus. This includes, but is not limited to, course content, assignments, scheduled dates, and fraction(s) of the final grade assigned to individual items within the course. Although your attendance at the lecture is not required, you are responsible for any announcements made in class, including changes in the quiz and examination schedule, course content, assignments, scheduled dates, and fraction(s) of the grade assigned to individual items within the course. If changes become necessary, I will announce them as early as possible.

Last update: August 24, 2009