Chem 445 Spring 2013
Kinetics

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Office Hours MWF 10-11 in LaT 327 or 331 or by appointment or drop-in
(Note: the first Monday of each month at 10, I will be at the Graduate Council instead)

This class will cover reaction kinetics and dynamics from both the macroscopic and microscopic point of view. The text will be Paul Houston’s Chemical Kinetics and Reaction Dynamics. Other texts useful for supplementary reading include Pilling and Seakins, Levine and Bernstein, and Steinfeld, Francisco and Hase (Check the library or see me). In addition, any advanced P-chem book will have a section on kinetics that will provide a useful overview.

There will be four tests in this class. The first will tentatively cover chapter 2 of the book (macroscopic kinetics). The second will cover chapters 1 and 3 (microscopic dynamics). The Third test will cover chapters 4-6, and the Final will cover chapters 7 and 8 as well as comprehensive aspects of the material. The homework will include problems from the book. More essay-like assignments on chemical literature will be available for optional credit.

The grading will be as follows:

<table>
<thead>
<tr>
<th>Date</th>
<th>Assignment</th>
<th>Points</th>
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</thead>
<tbody>
<tr>
<td>Feb 6</td>
<td>Test 1</td>
<td>100</td>
</tr>
<tr>
<td>Mar 6</td>
<td>Test 2</td>
<td>100</td>
</tr>
<tr>
<td>April 10</td>
<td>Test 3</td>
<td>100</td>
</tr>
<tr>
<td>May 6</td>
<td>Final</td>
<td>100</td>
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<tr>
<td></td>
<td>Homework</td>
<td>100</td>
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</tbody>
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The grading scale will by 90% = A, 80% = B 70% = C, 60% = D. The grades may be scaled if necessary, but only in the direction favorable for students.

Chapter 1 Homework:

1, 4, 5, 6, 7, 11 (use 298 K), 13, 14, 17

Chapter 2 Homework:

1, 2, 3, 4, 5, 9, 11, 12, 13, 14, 25, 26, 27, 28, 33,

Separate assignment:
Chapter 2 problems 36a, 36b
This assignment can be turned in as a sample spreadsheet page and three sample graphs. You can choose convenient rate constants as long as you meet the criteria of the problems.
Academic Integrity:

Good academic work must be based on honesty. The attempt of any student to present as his or her own work that which he or she has not produced is regarded by the faculty and administration as a serious offense. Students are considered to have cheated if they copy the work of another during an examination or turn in a paper or an assignment written, in whole or in part, by someone else. Students are responsible for plagiarism, intentional or not, if they copy material from books, magazines, or other sources without identifying and acknowledging those sources or if they paraphrase ideas from such sources without acknowledging them. Students responsible for, or assisting others in, either cheating or plagiarism on an assignment, quiz, or examination may receive a grade of F for the course involved and may be suspended or dismissed from the university. (Note that working together on homework is not considered plagiarism in this class; copying another’s homework is.)

Accommodations for Students with Disabilities:

A student who believes that reasonable accommodations with respect to course work or other academic requirements may be appropriate in consideration of a disability must (1) provide the required verification of the disability to the Disabilities Resource Center, (2) meet with the Disabilities Resource Center to determine appropriate accommodations, and (3) inform the faculty in charge of the academic activity of the need for accommodation. Students are encouraged to inform the faculty of their requests for accommodations as early as possible in the semester, but must make the requests in a timely enough manner for accommodations to be appropriately considered and reviewed by the university. If contacted by the faculty member, the staff of the Disabilities Resource Center will provide advice about accommodations that may be indicated in the particular case. Students who make requests for reasonable accommodations are expected to follow the policies and procedures of the Disabilities Resource Center in this process, including but not limited to the Student Handbook.

A wide range of services can be obtained by students with disabilities, including housing, transportation, adaptation of printed materials, and advocacy with faculty and staff. Students with disabilities who need such services or want more information should contact the Disabilities Resource Center at 815-753-1303.