

Chemistry 335 - Kinetics & Thermodynamics

MWF 8:10-9:00

Text – Chang's Physical Chemistry

Sheryl Hemkin

hemkins@kenyon.edu

Office & Phone: Tomsich 106 740.427.5093

Office hours: M & W 9:05-11 am & by appointment

Course Description –

This course presents a study of kinetics and thermodynamics as applied to chemistry. Since your future is unlikely to rest in solving problems from a p-chem book, we will be working to analyze/solve the given problems such that you develop the ability and confidence to work past the book, on the problems that you will encounter in the future. To get to this point, in the first part of the semester we will focus on thermodynamics and use the first and second laws of thermo to help understand equilibrium and describe the energetics of reaction. In the second half of the semester we will concentrate on kinetics, starting with the basic ideas of molecular motion that will build to an understanding of the rate equations and dynamics of more complex reactions.

Words of Wisdom –

If you have a question or are having difficulties, get help RIGHT AWAY! and DO THE HOMEWORK!!

Accommodations

Students who anticipate they may need accommodations in this course because of the impact of a learning, physical, or psychological disability are encouraged to meet with the Director of Student Accessibility and Support Services privately early in the semester to discuss their concerns. Students must contact Erin Salva, (740-427-5453 or salvae@kenyon.edu), as soon as possible, to verify their eligibility for reasonable academic accommodations. Early contact will help to avoid unnecessary inconvenience and delays.

Bias/Discrimination/Harassment

Kenyon College seeks to provide an environment that is free of bias, discrimination, and harassment. If you have been the victim of sexual harassment/misconduct/assault we encourage you to report this. If you report this to a faculty member, she or he must notify our college's Title IX coordinator about the basic facts of the incident (you may choose whether you or anyone involved is identified by name). For more information about your options at Kenyon, please go to: www.kenyon.edu/directories/offices-services/title-ix/sexual-assault-and-harassment/

Academic Honesty

Kenyon College is, at the core, an intellectual community of scholars – students and faculty – engaged in the free and open exchange of ideas. Critical to this lively exchange and deep engagement with ideas is the academic integrity of our work, both inside and outside the classroom.

At Kenyon we expect all students, at all times, to submit work that represents these standards of academic integrity. It is the responsibility of each student to learn and practice the proper ways of documenting and acknowledging those ideas and words you have drawn upon (see *Course Catalog: Academic Honesty and Questions of Plagiarism* for details). Ignorance and carelessness are not excuses for academic dishonesty. That is, materials submitted for grading must be your own work, that is, not a copy of someone else's work, even in part. If you are uncertain about the expectations for academic honesty in this class, please ask for clarification. Note: this seminar encourages collaborative work; however your work must still be your own

Evaluation

Mid-Term Exams (2)	40 %
Final Exam	20 %
Project	12 %
Homework	13 %
Quizzes	15 %

- Tentative Problem, Quiz & Exam Schedule -

<i>week</i>	<i>monday</i>	<i>wednesday</i>	<i>friday</i>
<i>week 0 - a31</i>	---	---	Intro
<i>week 1 - s3-s7</i>	Ch 2	Ch 2	Ch 3
<i>week 2 - s10-s14</i>	Ch 3	Ch 3; quiz 1	Ch 4
<i>week 3 - s17-s21</i>	Ch 4	Ch 4	Ch 4
<i>week 4 - s24-s28</i>	Ch 4; quiz 2	Ch 4	Ch 5
<i>week 5 - 01-05</i>	Ch 5	FIRST EXAM	Ch 5
<i>week 6 - 08-012</i>	Ch 5	Ch 6	<i>iii break !!!</i>
<i>week 7 - 015-019</i>	Ch 6	Ch 6	Ch 7
<i>week 8 - 022-026</i>	Ch 7	Ch 7; quiz 3	Ch 7
<i>week 9 - 029- n2</i>	Ch 9	Ch 9	Ch 9
<i>week 10 - n5-n9</i>	Ch 9	Ch 9	Ch 12
<i>week 11 - n12-n16</i>	SECOND EXAM	Ch 12	Ch 12
<i>Thanksgiving</i>		<i>iii break !!!</i>	
<i>week 12 - n26-n30</i>	Ch 12	Ch 12	Ch 13
<i>week 13 - d3-d7</i>	Ch 13; quiz 4	Ch 13	Ch 13
<i>week 14 - d10-d14</i>	Ch 13	special topics	special topics
<i>December 21, 8:30pm (Friday) FINAL</i>			

Changes

Any and all parts of this syllabus are subject to change. Notification of such changes will be made in class or via e-mail prior to taking effect.