

Freshman Organic Chemistry I

Chemistry 124, Fall 2014

Lectures:	MWF, 10:30-11:20 AM, SPL 59
Instructor:	Jonathan Ellman: 330 CRB, jonathan.ellman@yale.edu
Office Hours:	Tuesdays, 3:00 to 4:00 pm and Fridays, 11:30 to 12:30 pm (330 CRB)
Teaching Assistants:	To be named (one recitation/week with times and locations to be determined)
Peer Tutor:	Timothy Caradonna, timothy.caradonna@yale.edu
Text:	<i>Organic Chemistry</i> by G. Marc Loudon, 5 th Ed; Roberts and Company, 2009
Study Guide:	<i>Study Guide and Solutions Manual</i> by Marc Loudon and Joseph G. Stowell, 5 th Ed
Also Suggested:	HGS Molecular Structure Model Kit; W. H. Freeman & Co Ltd

GRADING

The course will be graded on the basis of 1000 points allocated as follows:

1. There will be three midterm exams. The two highest scores will be counted (225 points each exam).
2. The final exam will be worth 450 points.
3. There will be four quizzes. The three highest scores will be counted (25 points each quiz).
4. One worksheet worth 25 points should be turned in before 1:00 pm on **Friday, December 5th**.

Course Grade:

Final letter grades in this course will be based upon the total points in the course. If a midterm exam/quiz is missed due to illness or for personal reasons, the missed exam/quiz will serve as the low score that is dropped.

Examinations:

- I. The midterm examinations will be held in class (10:30-11:20 AM) on **Monday, September 22nd**, **Monday, October 20th**, and **Friday, November 21st**.
- II. The final examination will be three hours in duration and will be held at **2:00 PM** on **Wednesday, December 17th**.

Quizzes:

Quizzes will be given at the beginning of four of the lectures and will be **10 minutes** in duration. The quiz dates will be announced in class a few days in advance of the dates on which they are to be held.

Regrading policy:

Requests for exam re-grading must be submitted in writing to your TA along with the original exam (keep a copy for your records) within two weeks of the exam date.

CLASS WEBSITE: https://classesv2.yale.edu/portal/site/chem124_fl14

The class website will be used to post the syllabus and worksheet, announcements, practice midterms and finals, answer keys to quizzes and exams, etc.

Course Sequence

(Chapter references are to Loudon)

Chemical Bonding and Chemical Structure	Chapter 1
Alkanes	Chapter 2
Acids and Bases: The Curved Arrow Notation	Chapter 3
Introduction to Alkenes. Structure and Reactivity	Chapter 4
Addition Reactions of Alkenes	Chapter 5
Principles of Stereochemistry	Chapter 6
Cyclic Compounds. Stereochemistry of Reactions	Chapter 7
Introduction to Alkyl Halides, Alcohols, Ethers, Thiols, and Sulfides	Chapter 8
The Chemistry of Alkyl Halides	Chapter 9
The Chemistry of Alcohols and Thiols (a subset of sections covered)	Chapter 10
The Chemistry of Ethers, Epoxides, Glycols, and Sulfides (a subset of sections covered)	Chapter 11
Introduction to Spectroscopy. Infrared Spectroscopy and Mass Spectrometry (a small subset of sections covered)	Chapter 12
Nuclear Magnetic Resonance Spectroscopy	Chapter 13