CHEM 333 Spring 2013
Organic Chemistry I
California State University Northridge

Lecture:

Instructor:	Dr. Tom Minehan
Office:	Science 2314
Office hours:	WR 1:00-2:00 pm
E.mail:	**thomas.minehan@csun.edu**
Class Meetings:	MW, 2:00-3:15 pm
Discussion:	M or W, 3:30-4:20
	Eucalyptus 2221
Text & supplies:	Wade, *Organic Chemistry*, 7th edition
	Simek and Wade, *Solutions Manual for Organic Chemistry,* 7th edition.
	A set of molecular models (e.g., *Molecular Visions* models)
Course Web Site:	http://tminehan.com/

Prerequisite for Enrollment in Chemistry 333

A passing grade in Chemistry 102 or its equivalent

About the Course: In this course you will be introduced to the fundamental principles of organic chemistry. After a thorough examination of the structure, properties and stereochemistry of organic molecules, the basic organic reactions used to prepare common functional groups will be studied. In this context, the mechanistic principles underlying the reactions studied will also be emphasized. Finally, the course will familiarize the student with the common spectroscopic techniques chemists use for determination of the structure of organic molecules: NMR, IR, and mass spectrometry.

Organic Chemistry is not only an interesting and fascinating field of study, but *application of the concepts you will learn in this course lead everyday to the synthesis of important new materials and pharmaceutical drugs, and to developing sophisticated new lab experiments to understand various natural / biological processes* (just to name a few). Most areas of modern science, especially medicine, biology and engineering, are strongly influenced by developments in organic chemistry, and the ability to synthesize and structurally characterize organic molecules greatly facilitates research in these other disciplines.

Student Learning Outcomes: (SLO1) Demonstrate basic knowledge in the area of organic chemistry (assessment tool: embedded questions in the final exam from an ACS standardized exam in organic chemistry)

Grading:

- Two hourly exams 2 x 100 = 200 pts (dates on schedule following)
- Final Exam (cumulative): 200 points. May 13, 3:00 pm
- **ACS Standardized Exam** (given on last day of discussion): 100 points
- Best 5 out of 6 quizzes (see below): 5 x 20 = 100 pts

TOTAL = 600 PTS

*Final grade will be assigned at the end of semester using (+/-) grading system. An overall score greater than/ equal to 80%, 70%, and 60% of the **total** point will guarantee you an **A**, **B**, or **C**, in the course, respectively. You will get a passing grade in this course only **if you get an overall score of 50% or higher. You must take the final exam in order to pass the course!**

Quizzes are given every second Monday at the beginning of class. Each quiz will last 10 minutes and will cover material from the previous week's lecture

Note: Your grade in this course is based solely on your performance on quizzes, exams, and in the lab.

***Attendance:** Attendance in the lecture is **mandatory**

***Drop/ Withdrawal Policy:** The chemistry department adheres to the university policy concerning withdrawal from the course. A full description is published in the university catalog for the dates fixed for adding, withdrawal, etc. **Academic failure does not constitute a clear and compelling reason for withdrawal from class** or for the assignment of an incomplete grade after the date for withdrawal, as specified in the University catalog, is passed.

Make up exams are normally not given, and will be considered only under very compelling and unusual circumstance and when proper documentation is provided in support of such a request.

Cheating: Cheating on an exam will result in failure on that exam plus possible disciplinary action by the Dean of Students. In any instance of academic dishonesty the University's disciplinary procedures will be followed.

Tutoring: Free tutoring is available at the Department tutoring center in Science 2307 and at the Learning Resource Center. Also, the chemistry department has the names of people who will tutor for a fee.

First day FAQ's

What are the goals of this course for the student? At the end of the course, students should have a firm grasp of organic functional group structure and reactivity. Furthermore, students should be able to propose reasonable mechanisms for simple organic reactions, and to suggest a rational synthetic sequence for the preparation of simple organic molecules.

What instructional methods will be used in this course? The 2.5 hour weekly lectures will incorporate both problem solving and class discussion. Questions during class are strongly encouraged, but because of time constraints, faculty office hours and the discussion course may be an even more ideal forum for questions and discussion on course content.

• Lecture Notes are posted on the course website, along with reading assignments, practice problems from the text, and additional practice problems. Answers to the additional practice problems, quizzes and exams will be posted periodically.

• In addition, the website contains links to useful internet sites on organic chemistry with tutorials and reaction mechanism movies.

Please make use of the course website and the internet resources provided to you!!

How does this course fit into broader curricula? Because of the importance of organic chemistry to almost every field of science, organic chemistry is a required course for people intending to major in biology, biochemistry, and any medical-related field. If you study in any of the above areas, you will certainly find that material in more advanced courses in your major will revisit the basic principles you learn here over and over again (so learn it now!).

Why was the required course textbook chosen? Both students and teachers alike in the past have found Wade to be sufficiently detailed yet clear and concise in its introductory treatment of organic chemistry.

Chemistry 334
Course Schedule
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Dates	Topics	Reading
Jan 23, 28	Introduction and Review	Chapter 1
Jan. 30, Feb.4	Structure & Properties of Organic Molecules	Chapter 2
	Week of Feb 4: quiz #1	
Feb 6, 11	Structure and Stereochemistry of Alkanes	Chapter 3
Feb. 13, 18	The Study of Chemical Reactions	Chapter 4
	Week of Feb. 18: quiz #2	
Feb. 20, 25, 27	Stereochemistry	Chapter 5
Mar. 4	**Exam #1 (**Chapters 1-5)	
Mar. 6, 11	Alkyl halides	Chapter 6
	Week of Mar. 11: quiz #3	
Mar. 13, 18	Structure of Alkenes	Chapter 7
Mar. 20, 25, 27	Reactions of Alkenes	Chapter 8
	Week of Mar. 25: quiz #4	
Apr. 3	**Exam #2** (Chapters 1-8)	
Apr. 15, 17	Alkynes	Chapter 9
Apr. 22, 24	Structure of Alcohols	Chapter 10
	Week of Apr. 22: quiz #5	
Apr. 29, May 1	Reactions of Alcohols	Chapter 11
	Week of Apr. 29: quiz #6	

May 6, 8	NMR Spectroscopy	Chapter 13

Week of May 6: ACS standardized exam

May. 13	**FINAL EXAM 3:00 pm-5:00 pm**
	(cumulative, Chapters 1-13, excluding 12)