

# SUNY Orange      SYLLABUS

## Organic Chemistry I

Instructor      Pak Leung

Office            HO 3-B

3 lect., 3 lab., 4 cr. (Fall)

:

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Office Hours: See hours on the office door

### COURSE DESCRIPTION:

#### **34201 Organic Chemistry I**

**3 lect., 3 lab., 4 cr.**

This is the first of two-semester course of organic chemistry. An integrated presentation of the chemistry of aliphatic compounds with special emphasis on structure, nomenclature, mechanism and stereochemistry. Spectroscopy will be introduced. Laboratory work includes basic characterization techniques, basic synthesis, keeping a laboratory notebook and written formal reports.

**Prerequisite: minimum grade of C in 34106**

### TEXT AND MATERIALS:

Text: Morrison and Boyd, Organic Chemistry 6<sup>th</sup> Ed., Prentice, NJ, 1992

Laboratory: Pavia, Lampman, Krig, Engel, Organic Laboratory Techniques, A Microscale Approach, Saunders College Publishing, 3<sup>rd</sup> Ed. 1999

### RELATIONSHIP TO PROGRAMS:

Chemistry 34201 is designed for the student pursuing a chemistry or biological/health related major at an upper division institution. As elective, student majoring in chemical, biological or environmental engineering should plan to take. The Science and Engineering Department offer this course. This course may be applicable to several programs. Consult your advisor and refer to the OCCC catalog, which contains authoritative information. If changes in procedures and requirements are necessary, the instructor will announce them. If in doubt about the proper chemistry course to take, consult with your advisor or with the Department Chair.

### Course Objectives

- To learn to classify, name, and understand molecular structures and properties of functional groups and organic compounds.
- To learn principles of reaction rate and mechanism in organic reactions.
- To study techniques that exploring organic chemistry.
- To build the foundation for learning industrial processes and biomolecules and living things.

### GRADING SYSTEM:

The grading for this course will be determined as follows

Quizzes	20%
Test 1	10%
2	10%
3	10%
Final	20%
Lab. Work/Quizzes	30%

### ATTENDANCE AND WITHDRAWAL:

Attendance is mandatory. Perfect attendance is assumed in this course. Without proper attendance a student will not do well in this course. To be successful in chemistry one must pay attention in lecture and conscientiously do the homework. It is the student's responsibility to ensure that she/he is doing well in the course.

No make up quizzes are allowed for any reason. However, one quiz with the lowest grade will be dropped from the average.

### SUPPORT SERVICES:

Tutoring services are available in the Library. There is a study lounge available in Horton Hall, which is close to all the faculty offices. There are services available for students with disabilities. Any such conditions should be communicated privately to the instructor on the first day of class so that any necessary special arrangements or accommodations can be made.

**Orange County Community College**  
**34201 Organic Chemistry I**

**Tentative Schedule**  
**Fall 2002**

3 Lec., 3 Lab., 4 Cr.

Instructor: Dr. Pak Leung

Lec. Section EF: T 6:30-9:20 pm

Lab.: Section Z: TH 6:30-9:20 pm

<b>Week</b>	<b>Topic</b>	<b>Text Chapter</b>	<b>Lab Pages</b>
1	Review/Bonding/Structure Safety/Lab Check in	1	2-27
2	Methane/Transition State Microscale Methods	2	38-43,46-49,71-75
3	Alkanes/Free Radical substitution Isolation of Caffeine from tea/Extraction	3	123-127
4	Stereochemistry Acetaminophen/Crystallization	4	109-112
5	Test 1 Acetaminophen cont.		
6	Alkyl Halides/Nucleophilic Sub. Banana Oil/Reflux	5	131-133
7	Columbus Monday, no class Essential Oil/Steam distillation		139-143
8	Alcohols and Ethers ncw	6	
9	Role of Solvent/ Literatures Isolation of Chlorophyll/Chromatography	7	158-162
10	Alkenes: Elimination Reactivity of Alkyl Halides	8	190-193
11	Test 2 Nucleophilic Substitution		194-199
12	Alkenes: Addition *** Macroscale-C4 Acetate	9	470-475

13	Conjugation and Resonance	11	
14	Alkynes/ Spectroscopy Elimination Reaction	12,17	224-225
15	Introduction to Spectroscopy/Review Test 3	17	
16	Final/Lab Check Out		