

Course **CHEM205. Organic Chemistry II**

Description: A continuation of Chemistry 106. Particular emphasis is placed on reactivity and synthesis of a variety of organic functional groups including alcohols, ethers, carbonyl compounds, and carboxylic acids. Other topics include macromolecules, carbohydrates, and NMR spectroscopy. This course must be taken concurrently with Chemistry 205a.* Prerequisite: Chemistry 106. Three hours per week. Three semester hours.

Course Goal: This course strives to provide the student with the fundamental principles of organic chemistry that can be applied to solve a variety of unique and challenging problems.

Instructor: Dr. Victor J. Tortorelli
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Office Hours as posted on office door or on the web at <http://webpages.ursinus.edu/vtortorelli/schedule.html>
or by appointment

Class Meetings: Section C: MWF 10:00 to 10:50 AM
Pfahler 208

Lecture Schedule: An approximate schedule of class topics and reading assignments will be attached to this syllabus.

Attendance Policy: Attendance will be taken for advising purposes. The College's attendance policy is found on page 42 of the *2007 – 2008 Course Catalogue*. I expect students to attend all scheduled classes. An academic warning may be issued to any student who has missed more than three classes and a student may be excluded from the course if more than six classes are missed.

Textbook: L. G. Wade, Jr.; *Organic Chemistry*, sixth edition, Prentice Hall, 2006
ISBN: 0-13-187151-X

Blackboard Site: A Blackboard site has been established for this course. Be sure to check it often as updates to the syllabus and other important information will be posted. The "course documents" folder contains exams from previous years, lecture outlines, and suggested end-of-chapter problems. All course handouts will be posted on the site.

Solutions Manual: There is a study guide/answer book to accompany the text.
Jan W. Simek; *Solutions Manual for Organic Chemistry*, sixth edition, Prentice Hall, 2006. ISBN: 0-13-147882-6

Grading: Your grade will be based on your performance on four exams (76%), and a Final cumulative exam (24%).

Academic Honesty: The College's Statement on Academic Honesty is found on pages 42 - 43 of the 2007 – 2008 *Course Catalogue*. A more detailed explanation can be found within the *Student Handbook*.

Exams:* Exams are scheduled on the following class days :
Exam #1 Thursday, September 13th
Exam #2 Thursday, October 11th
Exam #3 Thursday, November 8th
Exam #4 Thursday, November 29th
Final (cumulative) Exam: Thursday, December 13th 6PM in Olin Auditorium

*Exams will be given on Thursday evenings from 7 to 8:30 PM in Pfahler Auditorium.

Exam Etiquette: When taking an exam please refrain from making noises and movements that would be distracting to your classmates. Keep your eyes focused on your paper. Silence all cell phones, watch alarms, and beepers. You will not be allowed to have any electronic devices (cell phones, pagers, calculators, PDA's, etc.); books; notes; model kits; etc. at your desk during the exam. You may leave the exam when finished but please do so quietly as not to disrupt your classmates.

Exam Attendance Policy: Attendance at examinations is required. Examinations are scheduled from 7 to 8:30 PM in Pfahler Auditorium. In general, make-up exams will NOT be administered. Anyone who is absent from an examination will receive the grade of "zero" for that exam, *except in the case of an excused absence*. The student who is legitimately ill *must* present a physician's excuse, stating not only that the student was seen by a physician, but also that the student's illness made it impossible for her or him to sit for the examination. Illness before an exam is not considered to be a legitimate excuse as you are expected to keep up-to-date with the material and not allow the bulk of your studying to be done immediately before the exam. If an unanticipated emergency occurs, you must contact me prior to the examination to explain the situation. College-sponsored activities (such as athletic events, musical programs, etc.) are not considered valid reasons for missing an exam. Such conflicts should be brought to the attention of the instructor during the first week of classes. In extraordinary cases, at the discretion of the instructor, a make-up exam may be given.

Date	Day	Topics	Reading (pages)
Aug. 27	M	Chapter 12: Mass Spectrometry	537 – 552
29	W	Chapter 13: NMR Spectroscopy	559 – 576
31	F	NMR	576 – 588
Sept. 3	M	NMR, Problem Solving	588 – 599
5	W	Carbon NMR, Problem Solving	599 – 609
7	F	Chapter 14: Ethers	623 – 639
10	M	Epoxides	642 – 653
12	W	Chapter 15: Conjugated Systems	663 - 672
13	H	Exam #1	
14	F	No class	
17	M	Kinetic vs Thermodynamic Control, D/A Reaction	672 - 689
19	W	UV Spectroscopy	692 – 698
21	F	Chapter 16: Aromatic Compounds	705 – 717
24	M	Aromaticity	717 – 738
26	W	Chapter 17: Reactions of Aromatic Compounds	749 – 757
38	F	Orientation Effects	757 – 768
Oct. 1	M	EAS Summary	768 – 771
3	W	Friedel–Crafts Reaction	771 – 779
5	F	NAS and other reactions	780 – 794, 904 – 908
8	M	Chapter 18: Ketones and Aldehydes	805 – 818
10	W	Synthesis	805 – 818
11	H	Exam #2	
12	F	No class	
17	W	Reactions	829–832,836–838,845–852
19	F	Reactions	838–845,832–836,852–855
22	M	Chapter 22: Enols and Enolates	1041 – 1052
24	W	Alkylations and Condensations	1052 – 1064
26	F	Aldols, Claisens, and Dieckmanns – Oh my!	1064 – 1074
29	M	Synthesis	1074 – 1081
31	W	Conjugate Additions	1081 – 1090
Nov. 2	F	Chapter 20: Carboxylic Acids	935 – 952
5	M	Synthesis	952 – 957
7	W	Reactions	957 – 968
8	H	Exam #3	
9	F	No class	
12	M	Chapter 21: Carboxylic Acid Derivatives	978 – 1026
14	W	Acid Halides	978 – 1026
16	F	Acid Anhydrides	978 – 1026
19	M	Esters	978 – 1026
26	M	Amides and Nitriles	978 – 1026
28	W	Chapter 19: Amines	870 – 888
29	H	Exam #4	
30	F	No class	
Dec. 3	M	Reactions	888 – 910
5	W	Synthesis	911 – 923
7	F	Review – That's all Folks!	