

Advanced Organic Chemistry Part A (Chem 241) – Fall 2012

Instructor: Adam C. Whalley
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Office Hours: For *quick* questions, just drop by. Other times are *by appointment only*.
Class Meetings: 8:30 am – 9:20 am MWF, Angell B203
UVM Holidays: Classes will not be held on: September 3, November 19–23

Recommended Texts: Carey, F. A., and Sundberg, R. J. *Advanced Organic Chemistry, Part A: Structure and Mechanism*, 5th ed.
 Carey, F. A., and Sundberg, R. J. *Advanced Organic Chemistry, Part B: Reactions and Synthesis*, 5th ed.
 Kürti, L. and Czakó, B. *Strategic Applications of Named Reactions in Organic Synthesis: Background and Detailed Mechanisms*, 1st ed.

500-Point Scale:

Problem Sets	150 points	10 sets – assigned weekly
Examination 1	100 points	Wednesday, October 3 rd , 6:00 pm
Examination 2	100 points	Wednesday, November 14 th , 6:00 pm
Final Examination	150 points	Monday, December 10 th , 2012 from 7:30 am to 10:15 am in Angell B203

Note: The final examination will be cumulative!

Problem Sets: Ten problem sets will aid you in learning the class material and will prepare you better for the exams. They will be given weekly on Monday and are due **IN CLASS** the following Monday (in the case of Labor Day, the assignment will be due on Wednesday, September 5th). No Problem Sets will be assigned Labor Day (September 3rd) or any of the exam weeks (October 1st, November 12th, or December 3rd)!

Course Grading: Course grading will be structured according to the 500-point scale above. Failure to complete an assignment in a timely fashion will result in a numerical score of zero. Proposals for “extra credit” will not be considered.

Academic Conduct: Cheating or plagiarism will be considered grounds for failing the course (a numerical score of zero). All graded assignments must be your own work. Cases of cheating or plagiarism will lead to further disciplinary action, which may include dismissal from the University according to the rules set forth in the University of Vermont’s *Code of Academic Integrity*:

<http://www.uvm.edu/policies/student/acadintegrity.pdf>

Course Topics:

a. Review of bonding and reactivity	h. Pericyclic Reactions
b. Principles of Stereochemistry	i. Enolate Chemistry
c. Frontier Molecular Orbital Theory	j. Rearrangements
d. Conformational analysis	k. Oxidation / Reduction
e. Stereoelectronic effects	l. Protecting Groups
f. Transition state theory	m. Organometallics
g. Functional group manipulations	n. Retrosynthetic Strategy

Please note: This is a very *ambitious* and *tentative* list of topics. Chances are, some of the topics in the right-hand column will have to wait until Chem 242. Lectures and topics will be adjusted according to time considerations.