Advanced Organic Chemistry 2 (CHEM 242) – Spring 2016

Instructor: Adam C. Whalley
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Office Hours: For *quick* questions, just drop by. Other times are *by appointment only*.

Class Meetings: 11:45 am – 12:35 pm MWF, Cook A402

UVM Holidays: Classes will not be held on: February 15th, March 7th – 11th, April 1st

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:

Named Reaction Quizzes	100 points	10 quizzes – given ~weekly
Content Quizzes	150 points	Feb 19th, March 18th, April 22nd
Problem Sets	150 points	3 sets – one before each quiz
Cumulative Final	100 points	Friday, May 13th, 2016 from 10:30 am to 1:15 pm in Cook A402

Name Reactions: Name reactions are the toolbox of the organic chemist. Developing knowledge of these reactions will allow you to have a greater understanding of potential transformations and mechanisms. Each week (with the exception of content quiz weeks) you will be given THREE name reactions to learn. The following Friday, your knowledge of ONE of these name reactions will be tested with a quick 5–10 minute quiz.

Content Quizzes: A series of three in-class quizzes will be given regularly throughout the semester on the dates listed above. Prior to each of these quizzes you will be given a problem set to aid in your learning of the course material.

Course Grading: Course grading will be structured according to the 500-point scale above. Failure to complete an assignment or quiz on the assigned date 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. Sigmatropic Rearrangements
b. Enolate Chemistry
c. Overview of Olefin Synthesis
d. Elimination Reactions
e. Wittig and Related Reactions
f. Transition Metal Mediated Processes
g. Functional Group Conversions
h. Oxidation Reactions
i. Reduction Reactions
j. Protecting Groups
k. Organometallic Reagents
l. Natural Product Synthesis

The instructor reserves the right to change everything, with appropriate notice.