Advanced Organic Chemistry 2 (Chem 242) – Spring 2015

Instructor:Adam C. WhalleyOffice:Cook A330Phone:(802)656-8246

Email: Adam.Whalley@uvm.edu

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

Class Meetings: 11:45 am – 12:35 pm MWF, Angell B203

UVM Holidays: Classes will not be held on: January 19, February 16, March 2 – 6

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 13th, March 13th, April 17th
Problem Sets 150 points 3 sets – one before each quiz

Cumulative Final 100 points Monday, May 1st, 2013 from 7:30 am to

10:15 am in Angell B203

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 g. Functional Group Conversions

b. Enolate Chemistry h. Oxidation Reactions

c. Overview of Olefin Synthesis
i. Reduction Reactions

d. Elimination Reactionse. Wittig and Related Reactionsj. Protecting Groupsk. Organometallic Reagents

f. Transition Metal Mediated Processes

1. Natural Product Synthesis

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