Syllabus Chemistry 5312: Advanced Organic Synthesis

Spring, 2016

Course Webpage Blackboard (syllabus, course materials, and quizzes): https://elearn.uta.edu

Syllabus and course description: http://www.uta.edu/faculty/jjeon/Site/Courses/

Handouts, problem sets, the evolving reading assignment list (with exam schedule and problem set due dates), and some additional resources (like old exams) will be available at these sites.

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Lectures MWF; 10:00–10:50 am SH 331

Office Hours Mon, 11:00 am-12:00 pm and Wed, 1:00 pm-2:00 pm (or by appointment)

Textbooks: Required:

Advanced Organic Chemistry, Fifth Edition - Part B: Reactions and Synthesis, by Francis A. Carey and Richard J. Sundberg. Springer: New York, 2008. ISBN 978-0-387-68354-6.

Available online via our library:

http://uta.summon.serialssolutions.com/search?utf8=\langle &s.q=978-0-387-68354-6#!/search?q=978-0-387-68354-6

Strategic Applications of Named Reactions in Organic Synthesis, by Laszlo Kurti, Barbara Czako. Elsevier: Boston, 2005. ISBN-13: 978-0124297852.

Supprementary:

Modern Organic Synthesis: Lecture Notes, by Dale L. Boger. TRSI Press: San Diego, 1999.

Modern Physical Organic Chemistry, by Eric V. Anslyn and Dennis A. Dougherty. University Science Books: Mill Valley, CA, 2006. ISBN: 978-1891389313.

Classics in Stereoselective Synthesis, by Erick M. Carreira and Lisbet Kvaerno, 2009, ISBN: 978-3-527-29966-9.

Andrew G. Myers Handouts: http://www.chem.harvard.edu/groups/myers/page8/page8.html

Advanced Organic Chemistry, Fifth Edition - Part A: Structure and Mechanisms, by Francis A. Carey and Richard J. Sundberg. Springer: New York, 2008.

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http://uta.summon.serialssolutions.com/search?utf8=\sqrt&s.q=978-

0387683461#!/search?q=978-0387683461

Course This course is envisioned to discuss the major topics and issues in organic synthesis:

Description Mechanistic analysis, structure, stereochemistry, asymmetric synthesis, conformational analysis,

and, especially, stereo-, regio-, and chemoselectivity.

Course Grades Problem Set 10%

Project* 20% Midterm Exams (2) 40% Final Exam 30%

Presentation Dates: April 15th and 18th

Problem Sets: ca. twelve, throughout the semester (ca. weekly, except for exam weeks).

Project (8321): ACS-Style Research Presentations (each student per assigned full paper) on two class hours in

April; details to follow.

Exams (all): Midterm Exams: 10 am–12 pm (2 h) Wednesday, February 17th (ca. 16 lectures)

10 am-12 pm (2 h) Monday, April 4th (ca. 15 lectures)

Final Exam: 10 am-12 pm (2 h) Monday, May 9th (ca. 14 lectures): Details to be

discussed.