

**CHM 5226**  
**ORGANIC REACTIONS**  
**Fall 2011**

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Office: 5007 CSL  
**MWF, 9:05–9:55AM**  
**219 HTL**

Office Hours: MWF, 10–11AM, or walk-in  
Arrow Pushing Sessions: Saturdays, 10AM–12PM, as announced

Course Objective:

To provide you with the knowledge of general tactics in organic synthesis to allow future design and execution of synthetic strategies.

Grading:

2 tests (100 pts each), 1 final exam (200 pts), plus homework (up to 200 pts)

Exams:

Cumulative, and they assume a thorough understanding of undergraduate organic chemistry. However, specific exams will focus on the most recent material.

Textbooks:

**Required:** Carey and Sundberg, Advanced Organic Chemistry, Part B, 5<sup>th</sup> Ed, 2007

ChemDraw Ultra Version 12 software, available from the Department site license

**Recommended:** C&S, Advanced Organic Chemistry, Part A, 5<sup>th</sup> Ed, 2007

Kürti&Czakó, Strategic Applications of Named Reactions in Organic Synthesis, 2005

R. B. Grossman, The Art of Writing Reasonable Organic Reaction Mechanisms

*Re-read your undergraduate organic textbook!*

Molecular Models:

**Recommended:** Some form of molecular models; for example: HGS Models, Biochem 5000 Series, Bio-organic Set, 264 pieces <http://www.maruzenusa.com/>

Topics: (associated reading assignments in **bold**)

1. Diels-Alder reaction and Review (**C&S 6.1, 3**) 3 lectures
2. Oxidations (**C&S 4, 12**) 3 lectures  
<independent study: “Chemistry by Design” submission due Sept 23> 3 lectures
3. Reductions (**C&S 5**) 3 lectures

**Test #1 Sept 30** (on or about)

4. Reactions of carbonyls with nucleophiles (**C&S 7, 9, 2.3–2.6**)
5. Reactions of carbonyls with electrophiles (**C&S 1, 2.1–2.2**)
6. Organometallic Chemistry (**C&S 8**)

**Test #2 Nov 7** (on or about)

7. Carbocations, radicals, and carbenes (**C&S 10, 11**)
8. Pericyclic Reactions (**C&S 6**, see also C&S Part A, Chapter 10)
9. Special Topic: Alkyne Chemistry

**Final Exam Thursday, Dec 15, 3:00 – 5:00 pm**

# FACULTY SENATE REQUIRED SYLLABUS STATEMENTS

All syllabi must include the following statements:

**University Attendance Policy:** Excused absences include documented illness, deaths in the family and other documented crises, call to active military duty or jury duty, religious holy days, and official University activities. These absences will be accommodated in a way that does not arbitrarily penalize students who have a valid excuse. Consideration will also be given to students whose dependent children experience serious illness.

**Academic Honor Policy:** The Florida State University Academic Honor Policy outlines the University's expectations for the integrity of students' academic work, the procedures for resolving alleged violations of those expectations, and the rights and responsibilities of students and faculty members throughout the process. Students are responsible for reading the Academic Honor Policy and for living up to their pledge to ". . . be honest and truthful and . . . [to] strive for personal and institutional integrity at Florida State University." (Florida State University Academic Honor Policy, found at <http://dof.fsu.edu/honorpolicy.htm>.)

**Americans With Disabilities Act:** Students with disabilities needing academic accommodation should: (1) register with and provide documentation to the Student Disability Resource Center; and (2) bring a letter to the instructor indicating the need for accommodation and what type. This should be done during the first week of class.

This syllabus and other class materials are available in alternative format upon request.

For more information about services available to FSU students with disabilities, contact the:

Student Disability Resource Center  
874 Traditions Way 108  
Student Services Building  
Florida State University  
Tallahassee, FL 32306-4167  
(850) 644-9566 (voice) (850) 644-8504 (TDD)  
sdrc@admin.fsu.edu  
<http://www.disabilitycenter.fsu.edu/>

## Free Tutoring from FSU

For tutoring and writing help in any course at Florida State University, visit the Academic Center for Excellence (ACE) Tutoring Services' comprehensive list of tutoring options - see <http://ace.fsu.edu/tutoring> or contact [tutor@fsu.edu](mailto:tutor@fsu.edu) for more information. High-quality tutoring is available by appointment and on a walk-in basis. These services are offered by tutors trained to encourage the highest level of individual academic success while upholding personal academic integrity.

## Syllabus Change Policy

Except for changes that substantially affect implementation of the evaluation (grading) statement, this syllabus is a guide for the course and is subject to change with advance notice.