Chem 527 Syllabus
Spring 2015

Course Title: Synthetic Organic Chemistry

Instructor: Chao Zhang, Ph.D.
Office: LJS 369
Phone: 213-740-7040
Email: zhang.chao@usc.edu

Lectures: Tuesday and Thursday from 11:00 AM – 12:20 PM at GFS 220

Office Hours: Tuesday 4 - 5 pm at LJS 369 (or other time by appointment)


Objectives: Acquiring information on various reactions and synthetic strategies to design synthetic routes for target molecules. By the end of the semester, students are anticipated to read and understand journal articles without much difficulty.

Course Registration: This course offers 4 credits.

Course material: Students will learn a variety of fundamental knowledge in organic chemistry, and this course will focus mainly on classical and contemporary reactions, multistep conversion, and asymmetric synthesis. Below are the main chapters that will be covered in the course.

- Alkylations
- Additions to Carbonyls
- Aldol & Related Reactions
- Wittig-type Reactions
- Oxidation & Reduction
- Cycloadditions & Sigmatropic Rearrangements
- Cationic Reactions
- Radical Reactions
- Organometallics
- Protections & Multistep Syntheses

Course will follow the instructor’s lecture notes rather than the textbook. The instructor will provide handouts of lecture materials prior to classes. Students should use the textbook for in-depth learning and extra problem sets.
**Exams and Evaluation:** There will be 3 exams and assignments; Exam hours and places will be discussed and announced in classes.

<table>
<thead>
<tr>
<th>Exams and Assignments</th>
<th>Date</th>
<th>Time</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-term Exams</td>
<td>Feb 12 &amp; Mar 26</td>
<td>11:00am-12:15pm</td>
<td>100 pts each</td>
</tr>
<tr>
<td>Final exam</td>
<td>May 12</td>
<td>11:00am-1:00pm</td>
<td>160 pts</td>
</tr>
<tr>
<td>Assignments</td>
<td></td>
<td>4 over the semester</td>
<td>140 pts</td>
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<tr>
<td>Total</td>
<td></td>
<td></td>
<td>500 pts</td>
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</tbody>
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**Grading:** In accordance with university policy, course grades will be designated as A, B, C, D, or F. The following breakdown will be used as a guideline to determine the final letter grade. The cutoff numbers may be adjusted at the end from roundup and normalization.

<table>
<thead>
<tr>
<th>Final % average</th>
<th>Final grade</th>
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<tbody>
<tr>
<td>85 % or higher</td>
<td>A</td>
</tr>
<tr>
<td>70 to 84 %</td>
<td>B</td>
</tr>
<tr>
<td>55 to 69 %</td>
<td>C</td>
</tr>
<tr>
<td>45 to 54 %</td>
<td>D</td>
</tr>
<tr>
<td>below 45 %</td>
<td>F</td>
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**Attendance:** Complete attendance is required. For special reasons including medical ones, notify the instructor as soon as possible.

**Missed Exams:** MAKE-UP EXAMS WILL NOT BE GIVEN. Any unexcused absence from an examination will result in a grade of zero points for that exam. It is the student's responsibility to inform the instructor potential conflict when choosing the exam dates.

**Incompletes:** The grade of "I" will be given only under exceptional circumstances, such as an extended illness, which can be certified by a practicing physician. To receive an incomplete grade, the student must have a passing grade on all completed work up to that point. Thus, students who are failing the course can not request an incomplete. To remove an incomplete grade from the student's records, all requirements must be completed within one academic semester, otherwise the "I" will automatically be replaced with an "F".

**Academic Dishonesty:** CHEATING OR DISRUPTIONS IN THE CLASSROOM WILL NOT BE TOLERATED. Any attempts to cheat on examinations or assignments will result in a zero for that exam, and possibly an "F" for the course depending on the severity of the cheating.

*Please do not hesitate to e-mail the instructor if there are any questions or problems.*