

Chem 220B: Section 01  
Organic Chemistry Lecture (Spring 2008)  
T, R: 9:35-10:50 AM  
SC 4327

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I am maintaining a web page for this class at:

<http://www.vanderbilt.edu/AnS/Chemistry/Rizzo/Chem220b/chem220b.htm>

The syllabus, past exams & answers, and handout will be posted in PDF format on this page.

Prerequisite: A passing grade in Chemistry 220a. It is assumed that you have mastered the first semester of Organic Chemistry (Chapters 1-12, 14, 15 of Carey) as well as understand the vocabulary of organic chemistry.

Lab (Chem 219b): You must be enrolled in Chemistry 219b, Organic Chemistry Laboratory, unless you are repeating this course and/or have been given equivalent course credit for the lab. Professor A. List is the instructor for the lab. Please direct all questions regarding the lab to Professor List.

**Molecular Models:** Organic chemistry is a three dimensional science. Molecular models are highly recommended for lecture and may be purchased from the Student Affiliates of the American Chemical Society:

Organic Chemistry Models (Molecular Design, Inc.)  
or from the Bookstore:

## HGS Molecular Structure Models

**Office Hours:** M: 10:00-11:00 am; T: 9:00 am-10:00 am; W: 1:00 pm - 2:00 pm; and by appointment. Office hours are subject to change or cancellation without prior announcement. E-mail is an excellent way to communicate with me.

Course Content: Chapters 13, 15.17, 16-28 of Carey. A tentative schedule of topics is listed below. Chapters covered on the hour exams and Final may be adjusted if we fall behind schedule; the exams will never cover more than is stated.

### Course Policies:

Exams: Exam dates are indicated on the accompanying schedule and will NOT be changed. The final grades will be determined as follows:

Three hour exams (75 pts each)

Three 15-min in class quizzes (25 pts each) and weekly on-line quizzes (25 pts total)  
One Two-hour final Exam (100 pts)

Grades: Your final grade will be determined by your overall average according to the absolute scale shown below. The cutoffs may ultimately be expanded according to the class distribution.  
90-100 = A range; 80-89 = B range; 70-79 = C range; 60-69 = D range; below 60 = F

Final Exam: The final exam date is Fri. April 25 at 9:00-11:00 am in room SC 4327. There will be **NO** alternative date offered. Please make your travel plans accordingly.

Make Up Exams: I will give make-up exams under the following conditions:

1. If it can be made up within 24 hrs of the missed exam.
2. If it is arranged prior to the day of the missed exam.
3. There is a legitimate medical or family excuse. These excuses must be verified in writing by the Dean's office for family reasons or a physician for illness. A note stating that you visited Student Health is not sufficient. Having other exams on the same day, nor anxiety attacks will not be considered.

If all these conditions cannot be met and you have an excusable absence from the exam, then your final exam will count for a proportionally larger portion of the total grade. It is to your advantage to take all exams. There will be no make-up quizzes.

A note on partial credit: Simply writing down an answer does not entitle you to partial credit. For partial credit to be awarded, the answer must first, be at least partially correct; second, it must be relevant to the question being asked. Writing down the answer to a question that is not being asked does not warrant partial credit.

Handing back of exams and re-grades of exams: Exams will be graded and returned as soon as possible. The goal is always to have them graded by the next class. Requests for regrades will be considered for one week after the exams are handed back. **DO NOT MAKE ANY MARKS ON THE EXAMS UNTIL YOU ARE SATISFIED WITH THE GRADING!!**

Honor Pledge: You must legibly write the Vanderbilt Honor Pledge on every exam. Writing the honor pledge acknowledges that you are committed to it. Exams that do not have the honor pledge will not be graded and you will receive a zero.

*“I pledge my honor that I have neither given nor received aid on this examination”*

A Helpful Hint: There is a tremendous volume of information to be covered in this course and we will need to proceed at a brisk pace. I suggest that you come to class prepared, having already read the chapter. This will allow you to concentrate on concepts that may be unclear to you. Chemistry is a problem solving oriented subject, thus I suggest that you try every problem in the chapters we cover (you may see some of them reappear on exams). Finally, come to class!! Important concepts, i.e., things that may appear on exams, are emphasized in lecture as well as things not covered in the book. I encourage questions during lecture.

Suggested Problems: Check the class web page for suggested chapter problems. It is suggested that you work all the problems in each chapter and more if possible. Working problems will enhance your ability to do well on exams.

## Tentative Class Schedule

Date		Chapter
Thur	Jan 10	Chapter 13: Spectroscopy
Tue	Jan 15	Chapter 13 (con't)
Thur	Jan 17	Chapter 13 (con't) Chapter 15.14
<b>Tue</b>	<b>Jan 22</b>	Chapter 16: Ethers, Epoxides and Sulfides <b>Quiz on Chapters 13, 15.14</b>
Thur	Jan 24	Chapter 17: Aldehydes and Ketones: Nucleophilic Addition to the Carbonyl Group
Tue	Jan 29	Chapter 17 (con't)
Thur	Jan 31	Chapter 18: Enols and Enolates
<b>Tue</b>	<b>Feb 5</b>	<b>EXAM 1: Chapter 13, 15-17</b>
Thur	Feb 7	Chapter 18 (con't)
Tue	Feb 12	Chapter 19: Carboxylic Acids
Thur	Feb 14	Chapter 19 (con't)
<b>Tue</b>	<b>Feb 19</b>	Chapter 20: Carboxylic Acid Derivatives: Nucleophilic Acyl Substitution <b>Quiz on Chapter 18-19</b>
Thur	Feb 21	Chapter 20 (con't)
Tue	Feb 26	Chapter 21: Ester Enolates
<b>Thur</b>	<b>Feb 28</b>	<b>EXAM 2: Chapter 13, 15-20</b>
Mar.	3 - 7	<i>Spring Break (no classes)</i>
Tue	Mar 11	Chapter 21 (con't)
Thur	Mar 13	Chapter 22 Amines
Tue	Mar 18	Chapter 23: Aryl Halides
<b>Thur</b>	<b>Mar 20</b>	Chapter 24: Phenols <b>Quiz on Chapters 22-23</b>
Tue	Mar 25	Chapter 24: Phenols (con't)
Thur	Mar 27	Chapter 25: Carbohydrate
Tue	Apr 1	Chapter 25: (con't)
<b>Thur</b>	<b>Apr 3</b>	<b>EXAM 3: Chapters 13, 15-22-26</b>
Tue	Apr 8	Chapter 26 Lipids
Thur	Apr 10	Chapter 27: Amino Acids, Peptides, and Proteins
Tue	Apr 15	Chapter 27: (con't)
Thur	Apr 17	Chapter 28: Nucleosides, Nucleotides and Nucleic Acids
Tue	Apr. 22	Chapter 28 (con't)
<b>Fri</b>	<b>Apr 25</b>	<b>Final Exam, 9:00 - 11:00 am, SC 4327</b>