CHEM 261 Introduction to Organic Chemistry I

Instructor Professor Wei You
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Time and Location M-F 9:00-10:30AM (90 min)

Office Hours
TBD

Textbook
Organic Chemistry Bruice, 6th Edition
Student Study Guide & Solutions Manual for 6th Edition

Tentative Course Schedule:

Scheduled Topic	**Dates (Tentative)**	**Reading Assignment**
Electronic Structure and Bonding	Jul 8, 9	Chapter 1
Introduction to Organic Compounds	Jul 10	Chapter 2
Alkenes	Jul 11	Chapter 3
Excursion	**Jul 12**	**No Class**
Reactions of Alkenes	Jul 15, 16	Chapter 4
Stereochemistry	Jul 17, 18	Chapter 5
Reactions of Alkynes	Jul 19	Chapter 6
Exam 1	**Jul 22 (Mon)**	**Chapters 1-6**
Delocalized Electrons	Jul 23, 24	Chapter 7
Substitution Reactions of Alkyl Halides	Jul 25, 26	Chapter 8
Elimination Reactions of Alkyl Halides	Jul 29, 30	Chapter 9
Reactions of Alcohols, Ethers, Etc.	Jul 31	Chapter 10
Radical Reactions	Aug 1	Chapter 12
Exam 2	**Aug 2 (Fri)**	**Chapters 7-12**
Mass Spectrometry, IR, UV-Vis	Aug 5, 6	Chapter 13
NMR Spectroscopy	Aug 7	Chapter 14
Final Exam	**Aug 9 (Fri)**	**All Material Covered**

Note : Chapter 11 will be covered in 262.

Reading Assignment	Problems
Chapter 1	71, 72, 77, 78, 80, 82, 83, 85, 87, 93, 94
Chapter 2	48, 50, 55, 56, 57, 61, 63, 67, 73
Chapter 3	36, 38, 41, 42, 48, 52, 55, 57, 58
Chapter 4	38, 39, 40, 42, 43, 46, 48, 50, 52, 62, 64
Chapter 5	63, 65, 67, 69, 70, 75, 76, 78
Chapter 6	25, 28, 29, 37, 42, 46
Chapter 7	41, 42, 43, 44, 46, 48, 51, 62, 66, 68, 70, 71
Chapter 8	36, 37, 38, 39, 40, 42, 45, 48, 54, 60
Chapter 9	32, 33, 35, 37, 46, 53, 54
Chapter 10	33, 34, 35, 38, 42, 45, 48, 60, 66
Chapter 12	22, 24, 25, 26, 33, 35, 39
Chapter 13	40, 42, 44, 45, 49, 53, 58, 69
Chapter 14	46, 47, 51, 55, 57, 60, 61, 63, 72, 73

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Grading

There will be **a total of two class period exams** worth 60% of your final grade. In addition, there will be several short quizzes worth 10% total of your final grade. The **final exam** will count as 30% of your final grade. Each of the exams will be curved and the data will be given following each exam so that you can monitor your progress. **No makeup exams will be given**.

Final letter grades will be assigned in accord with the Academic Polices in the College of Arts and Sciences (http://advising.unc.edu/AcademicPoliciesProcedures):

A - Mastery of course content at the highest level of attainment that can reasonably be expected of students at a given stage of development. The A grade states clearly that the student has shown such outstanding promise in the aspect of the discipline under study that he/she may be strongly encouraged to continue.

B - Strong performance demonstrating a high level of attainment for a student at a given stage of development. The B grade states that the student has shown solid promise in the aspect of the discipline under study.

C - A totally acceptable performance demonstrating an adequate level of attainment for a student at a given stage of development. The C grade states that while not yet showing any unusual promise, the student may continue to study in the discipline with reasonable hope of intellectual development.

D - A marginal performance in the required exercises demonstrating a minimal passing level of attainment for a student at a given stage of development. The D grade states that the student has given no evidence of prospective growth in the discipline; an accumulation of D grades should be taken to mean that the student would be well advised not to continue in the academic field.

F - For whatever reasons, an unacceptable performance. The F grade indicates that the student's performance in the required exercises has revealed almost no understanding of the course content. A grade of F should warrant an adviser's questioning whether the student may suitably register for further study in the discipline before remedial work is undertaken.
The final grading scale ("curve") will be created to reflect these assessments.

Notes and Class Time
This will be a lecture-based course and you will be responsible for taking notes during class. **Although attendance is not factored into your final grade, it is highly encouraged that you do not miss any classes.** If you do miss a class, you are responsible for obtaining the lecture notes from one of your fellow classmates.

Class Rules and Etiquette
Please be respectful of both the instructor and your classmates. **As such, behavior that includes chatter, computer usage, reading of literature not pertinent to class is not permitted during lecture.** Repeat offenders will be asked to leave the classroom.

Sakai Website (sakai.unc.edu)
All materials including the syllabus for this class can be found here.

About This Course

Understanding organic chemistry is not unlike learning a foreign language. Gifted linguists do not develop without daily practice of the art. If you wish to learn organic chemistry, be proactive and industrious in your approach to it. I recommend the following at a minimum:

Come to class prepared. This is a no-brainer. Much of organic chemistry is conceptually new and if you've introduced yourself to key ideas *before* I lecture on them, they will sink in faster. If you are prepared, it will be easier to thoughtfully consider the content of the lecture rather than passively scribble down the notes, trying to digest them later. I will do what I can to make the class time an active, rather than passive information exchange. In this context, you should be prepared to think about and answer questions that I pose.

Do something for this course every day. You will learn and retain more if you spend some time each day reading the text, studying notes, working problems, rather than doing (e.g.) five hours once a week (or twelve hours the night before the exam). *To let more than two days pass without a substantial out-of-class effort is courting disaster.*

Do all the problems. Do not skip working the problems, look at the answers, and say "Oh, I understand that now." Chances are good that you don't, at least not to the degree needed. Hold off on checking the answers until you have wrangled, wrestled, and discussed. Look up related material in the notes and the appropriate text chapter. You will only learn the content by adopting a thorough and aggressive approach toward problem solving.

Get help early. If you are having problems with the material, seek help early in the semester. Halfway through the course is way too late.

Use summary sheets/flash cards. As new reactions and concepts are introduced, prepare a summary sheet or flash card that contains:

a) the name of the reaction

b) general example (use R groups); include all necessary reagents, solvents, and reaction conditions. Include workup conditions where appropriate.

c) Specific examples

d) Step-by-step mechanism showing electron movement with curved arrows

e) Stereochemistry of the reaction (if applicable)

f) Any electronic or structural effects on the reaction

For studying purposes, grouping reactions by category is helpful.

Studying in groups can help. Group studying can be effective when everyone is working hard and at a similar level of understanding. It can also give a false sense of understanding if the group comes up with an answer that is not completely obvious to the individual. If you study in groups, do not fall into the trap of feeling that your understanding of the material is more advanced than it is.

UNIVERSITY HONOR CODE STATEMENT:

The Honor Code and the Campus Code, embodying the ideals of academic honesty, integrity, and responsible citizenship, have for over 100 years governed the performance of all academic work and student conduct at the University. Acceptance by a student of enrollment in the University presupposes a commitment to the principals embodied in these codes and a respect for this most significant University tradition.

Your participation in this course comes with the expectation that your work will be completed in full observance of the **Honor Code**. Academic dishonesty in any form is unacceptable, because any breach in academic integrity, however small, strikes destructively at the University's life and work.

If you have any questions about your responsibility or the responsibility of faculty members under the **Honor Code**, please consult with someone in either the Office of the Student Attorney General or the Office of the Dean of Students.

Policy adopted by the faculty of the Department of Chemistry on September 9, 1977:

"Since all graded work (including homework to be collected, quizzes, papers, mid–term examinations, final examinations, research proposals, laboratory results and reports, etc.) may be used in the determination of academic progress, no collaboration on this work is permitted unless the instructor explicitly indicates that some specific degree of collaboration is allowed. This statement is not intended to discourage students from studying together or working together on assignments which are not to be collected."

One Final Note:
Please silence your cell phone BEFORE entering the classroom.