

CHEMISTRY 2461
(M, W, F 9:40 – 10:30 am; 214 Williams)

Office Hours: M and F 10:30 - 11:30 pm in 433 Choppin Hall or by appointment.

Textbook: *"Organic Chemistry"*, Paula Y. Bruice, 5th Edition, Prentice Hall Publishing Company, Upper Saddle River, NJ, 2006.

Supplementary Materials:

1. *"Study Guide and Solutions Manual for Organic Chemistry"*, Paula Y. Bruice, 5th Edition, Prentice Hall Publishing Company, Upper Saddle River, NJ, 2006.
2. *Organic Chemistry as a second language*, David Klein, Wiley, John & Sons, Inc., Hoboken, NJ, 2004.
3. Lecture Notes, problem sets, and other instructional aids will be posted in Semester Book.
4. Molecular Models are highly recommended.

Material to be covered: Chapters 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 14 (**NOT** 12 and 13).

Exam Schedule and Grading:

Exam # 1 (100 points): Monday, **September 25th**, 9:30 – 10:30 am

Exam # 2 (100 points): Wednesday, **October 18th**, 9:30 – 10:30 am

Exam # 3 (100 points): Monday, **November 6th**, 9:30 – 10:30 am

Exam # 4 (100 points): Monday, **November 27th**, 9:30 – 10:30 am

Final Exam (200 points): Tuesday, **December 12th**, 12:30 – 2:30 pm

Problem Sets (4 x 25 = 100 points):

No early or late exams will be given. Each exam will concentrate primarily on the chemistry covered since the previous exam, however earlier material might not be completely excluded because of the continuity of the course. The final exam will be comprehensive. All exams will be closed book and closed notes, but molecular models can be used. **The course grade will be based on the four hour exams scores (4x100) and the Final Exam (200 points) for a total of 600 points.** The points obtained in the Problem Sets (4 x 25) can substitute **only one** of the one-hour Exams. **The Final Exam grade will not be substituted.**

Study Hints:

1. **Do not miss a class.** Examinations are based on information discussed in class.
2. Take **additional** notes in class. Mark important points with asterisks or a highlighter. Think about designing flash cards to condense the large amount of information.
3. Read the material in the book and posted Lecture Notes before it is presented in the lecture and complete all the in-chapter problems of the material to be covered.

4. Make a schedule to **study regularly**, at least **one hour** every day. It is very important to understand the new concepts presented in one lecture for the following lectures. Minimize memorization and maximize a generic understanding of the material covered.
5. **Solve the study problems** at the end of the chapters and **afterwards** compare your answer with the answer in the Study Guide and Solutions Manual. Problem-solving will help you enormously to understand the material covered.
6. Use **molecular models** for a better visualization and understanding; organic chemistry is a three-dimensional science.

Topics Covered	Reading Assignments
Electronic Structure and Bonding	1.1-1.15
Acids and Bases	1.16-1.26
An Introduction to Organic Compounds	2.1-2.14
Alkenes: Structure, Nomenclature and Reactivity	3.1-3.8
Reactions of Alkenes	4.1-4.12
Stereochemistry	5.1-5.14, 5.16-5.21
Reactions of Alkynes	6.1-6.12
Electron Delocalization and Resonance	7.1-7.12
Substitution Reactions of Alkyl Halides	8.1-8.12
Elimination Reactions of Alkyl Halides	9.1-9.11
Reactions of Alcohols, Ethers, Epoxides and Sulfur Compounds	10.1-10.9, 10.11-10.13
Radicals – Reactions of Alkanes	11.1-11.11
Aromaticity – Reactions of Benzene and Substituted Benzenes	14.1-14.19

Study Problems:

Book problems (all problems in-chapter and at the end of each chapter in your book): These problems are suggested to serve as a guide in your studying, and for use in self-testing your understanding of the subject matter in the chapters and lectures. Detailed answers to the problems are given in the Study Guide and Solutions Manual. Make certain that you have worked and understand all the problems given within chapter sections we cover before proceeding with the problems at the end of the chapters.

Problem Sets will be both distributed in class and posted in Semester Book at least one week before each one-hour Exam. Please note the due date on each Problem Set (late Problem Sets will not be considered).

Good Luck!

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