

FALL 2010 CHEMISTRY 223-016 ORGANIC CHEMISTRY A

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Do you read the ingredient lists on food containers or the inserts included with prescription medicines? Do you have questions about 'natural' or 'organic products'? Are you worried about the dispersants BP used in the Gulf of Mexico? If so, this could be the class for you! The **goal** of this class is to introduce you to the world of organic chemistry so that you can: read labels; recognize organic compounds; identify functional groups; read science related news releases with some critical understanding; rationalize molecular reactivity in this and future classes; be prepared to interpret the structures and infer the reactivity of molecules to which you will be introduced; and, OH YES, pass future exams that depend on this information. You might think of this as a new language that will provide a basis to understand future classes by allowing you to build on the structural and mechanistic information here presented *e.g.* rationalize enzymatic reactivity or interpret drug structures

CONTENT: This course is a functional group approach to organic chemistry in which the fundamentals of aliphatic and alkenic chemistry will be discussed along with bonding, nomenclature, stereochemistry, conformational analysis, reaction mechanisms, and spectroscopy. The tentative lecture and exam sequence is listed. I plan to cover 14.5 chapters in roughly 13.6 weeks with about 50 pages of reading per week. The first two chapters are a review of topics from General Chemistry. Your previous textbook may help you review this material. The class esp. the final exam is, of necessity, cumulative. Your best plan is **study** organic every day.

I will be available for questions after lectures, during the discussion sections (Wed 11:30-2:45), during posted OFFICE HOURS (MWF 10:20 am), and other times, usually by appointment.

LECTURE: M W F 9:20-10:10am, DH-133 **DISCUSSIONS:** W & F 11:30 to 12:20, FH-105.

GRADING:	3 exams	300 pts 60 %
	1 final	150 pts 30 %
	Group Homework	50 pts 10 %

TEXTBOOKS and MATERIALS:

REQUIRED: **ORGANIC CHEMISTRY**, L.G. Wade Jr., 7th Ed., Prentice Hall (2010) You may also use the 5th or 6th Eds.

SUGGESTED: ^ ISBN-13:978-0-32-159231-6 (Be certain you have the appropriate Study Guide.)

STUDY GUIDE AND SOLUTIONS MANUAL, Wade & Simek 7th Ed or (6th or 5th Ed.)

MOLECULAR MODELS, Prentice-Hall, Freeman (Maruzen), or Proteus.

Pushing Electrons: A Guide for students of Organic Chem., D. Weeks, Harbrace

Organic Chemistry as a Second Language, D. Klein, J. Wiley (2004) ISBN 0-471-27235-3 **OR**

Organic Chemistry I as a Second Language John Wiley (2007) - PBK- 363 pages - ISBN 0470129298

PROBLEMS: You must work problems in a timely manner. Try to assess the relative difficulty and the topics covered so that you are working problems that accurately reflect the material covered in lecture. I collect only designated group homework problems, but encourage you to attempt and discuss all of the assigned homework. I will be happy to review homework in discussion section and during office hours.

EXAMINATIONS: Exam I-9/24, Exam II-10/20, Exam III-11/15, FINAL Saturday Dec 18, 2010 1 pm FH-133

NOTES:

1. Organic chemistry is not efficiently self-taught; overnight cramming *will not* produce consistent success. It is better to quickly scan the chapter before lecture so that your comprehension of lecture improves. After lecture, carefully read the chapter or portion covered in lecture, and then work the assigned problems. Your 'learning style' will affect how you should study. We will discuss.
2. Homework problems must be done soon after you cover the material in lecture, so that you stay current in class. The night before an exam is not an appropriate time to start homework. Homework questions have appeared on exams.
3. I grade on a curve and will give statistics such as the mean, the median, and the standard deviation for each exam. I do not predict cutoffs, but can tell you what the cutoff was for a previous test or class. Makeup exams will not be given.
4. Study time/ week for a C should include: Lecture/disc 4hr, reading 4 hr, homework 1-2 hrs, organizing 1 hr. Total 10-11 hr/wk.
5. Copies of an old exam will be made available on Blackboard about 1 week before each exam.
6. Academic Integrity: If you are discovered to be cheating on an exam, a grade of 0 pts will be assigned for that exam, and the Dean of A&S will be informed. Other consequences may follow. The Undergraduate Handbook discusses Loyola Policies.
7. All pagers and cell phones must be turned off during exams and all books, bags, coats, *etc.* brought to the front of the room!
8. LSC Tutoring Center (SUL-245 X83194) walk-in assistance first two weeks with appointments starting the first wk. of Sept.

Their schedule has been: M-F 10:00am till 6 M, 8Tu-W-Th, and 2 pm Fri. www.luc.edu/tutoringcenter

MAGAZINES THAT HAVE ARTICLES RELEVANT TO ORGANIC CHEMISTRY: *Discover*, *Scientific American*, *Consumer Reports*, *Science News*, *Science*, *etc.* Have you read articles about sweeteners, traces of drugs in city water, *etc.*?