

SYLLABUS FOR ORGANIC CHEMISTRY A  
CHEMISTRY 223, SECTION 007  
3.0 SEMESTER HOURS  
FALL SEMESTER, 2012

**Lectures:** M,W --- 6:15 – 8:00 p.m., FH-133

**Discussion:** This will be incorporated into the scheduled lecture time. The first such session will be held on Monday, September 10 from 7:15 – 8:00 p.m. In order to review material pertinent to each of the hour exams, discussion will be held on Mondays, September 17, October 22, and November 26 from 7:15 – 8:00 p.m. --- during which time problems from related exams given in this course in previous years will be worked. On Mondays, September 24, October 29, and December 3, discussion will be held from 7:15 – 8:00 p.m. --- at which time you will receive your “graded” exam and solutions to that exam’s questions will be discussed. During October and November, several additional discussion sessions will be held (usually from 7:30 – 8:00 p.m.) --- after appropriate sections of the course lecture material have been covered.

**NOTE:** Due to the vast number of topics that an organic instructor is required to cover during the formal course lecture, little (if any) time is available to answer students’ questions during the formal lecture. If you do have an urgent question that arises during a lecture, feel free to ask such questions during the “short break” (usually about 7:15 p.m. each class session) or (**preferably**) at the end of each class.

**Instructor:** Dr. Babler (Office: FH-209-210)  
e-mail: jbabler@luc.edu

**Office Hours:** M,W --- 8:00 – 9:00 p.m.  
**Tuesday (only when prior to an hour exam, on the following day) ---**  
3:30 – 7:00 p.m.  
F --- 3:00 – 4:30 p.m.  
Other times by appointment, please.

**Prerequisites:** General Chemistry or High School Chemistry

**Content:** The course covers the fundamentals of aliphatic and aromatic organic chemistry from a functional group approach. The topics include chemical bonding; isomerism; alkanes; cycloalkanes; conformational analysis; transition-state theory; free-radical chain reactions; stereochemistry; alkyl halides; alkenes and conjugated dienes; alkynes; alcohols and organometallics; ultraviolet, infrared, and nuclear magnetic resonance spectroscopy, along with mass spectrometry in organic chemistry; ethers and epoxides.

**Learning Outcomes:** Students will develop an understanding of the nomenclature, structure, and chemical reactivity of relatively simple organic molecules and some of the mechanisms by which such organic reactions occur. Students will also be introduced to the use of spectroscopy as a powerful tool for structure determination of organic molecules.

**Assignments:** Students are strongly advised to read the assigned pages in Wade's textbook and to work **some** of the suggested problems (listed on the attached sheet). However, there will be no formal homework assignments!

**Grading:** Three hour examinations will be given during the semester, as well as a final examination.

Distribution of Points:	
Hour Exam I:	100
Hour Exam II:	100
Hour Exam III:	125
Final Exam:	250
Total:	575

Grading Scale:

A = 460 - 575; B+ = 425 - 459; B = 365 - 424; B- = 330 - 364; C+ = 280 - 329; C = 230 - 279; C- = 190 - 229; D+ = 155 - 189; D = 115 - 154; F = 0-114 points

**NOTE:** There is no penalty if a student misses an hour exam; instead, his/her final exam score will be used to determine a larger % of the final grade. For example, if one misses the second hour exam, his/her final examination score would represent 60.9% (i.e., 350 pts.) of the final grade! No "make-up" hour exams will be administered.

**WARNING:** Since you are allowed to use an 8.5 x 11" sheet of notes as an aid during the final examination in this course, some of you may be tempted to skip the hour exams. Despite the availability of such notes during the final exam, it usually proves to be quite difficult; and therefore you should miss an exam only in case of serious illness and the like!

Hour Exam I will be given on Wednesday, September 19 (7:15 - 8:00 p.m.); Hour Exam II will be administered on Wednesday, October 24 (7:15 - 8:00 p.m.); and the third hour exam is scheduled for Wednesday, November 28 (7:05 - 8:00 p.m.). The final exam for this course is to be given on Monday, December 10, 6:15 - 8:15 p.m. in FH-133. **NO** "early" final exams will be administered.

**FORMAT FOR DAYS WHEN HOUR EXAMS I, II, AND III ARE ADMINISTERED:**

These exams are scheduled to be given on Wednesdays. Since the 2<sup>nd</sup> half of that week's Monday lecture will be used to review (problems from a related exam given in a previous year) and I will be available to answer your questions on Tuesdays **prior to each hour exam, no questions relating to the exam** will be answered during the lecture session on any exam day. If you finish taking the exam in less time than allotted (as many students do), you are free to leave early that evening.

**NOTE:** The Chemistry Department administers make-up final exams (different from the regular final exam) to those students who have a legitimate excuse (e.g., death in the immediate family; serious illness --- which does not include organophobia!; a court appointment that cannot be rescheduled, etc.). If for one of the latter reasons you are unable to take the regularly scheduled final exam, please inform the instructor (e-mail: jbabler@luc.edu ) promptly --- but no later than 48 hours after the date of the final exam --- so that a final grade of “I” can be assigned to you.

**NOTE:** A grade of “I” will not be assigned to you unless you can verify that there was a valid reason for your missing the final exam (e.g., hospitalization or death in the immediate family). Even if your grade is an “I,” you are still required to take a “make-up” final exam or the “I” will be converted to an “F” by the Dean’s office.

**NOTE:** Oversleeping; forgetting what day it is; not being “ready to take a final exam yet;” etc., are not valid excuses for missing the final exam. The Chemistry Dept. will not accept such explanations from students, and a grade of “0” will be assigned for your final exam score!

The last day to withdraw from class with a grade of “W” is Friday, November 2. After this date, the Dean’s office will automatically assign the grade of “WF” when a student withdraws from the course (except for cases in which the student is hospitalized or encounters some very serious difficulty). For those who contemplate a withdrawal from CHEM 223: If you receive a grade of W (or WF, F, D, or D+) in Chem 223, you are not allowed to register for Spring Semester 2013. Note: In regard to advice concerning a decision to withdraw (or not) from Chem 223, a student can meet briefly with the instructor sometime after Hour Exam II (but prior to November 2) to discuss his/her progress in the course. If you have taken neither of the two exams given in the course at this stage of the semester, you are strongly advised to withdraw from the class.

**ACADEMIC INTEGRITY:** All students in this course are expected to have read and to abide by the demanding standard of personal honesty, drafted by the College of Arts & Sciences, that can be viewed at:

[http://www.luc.edu/cas/pdfs/CAS\\_Academic\\_Integrity\\_Statement\\_December\\_07.pdf](http://www.luc.edu/cas/pdfs/CAS_Academic_Integrity_Statement_December_07.pdf)

Anything you submit that is incorporated as part of your grade in this course (e.g., quiz, examination, homework, lab report) must represent your own work. Any student caught cheating will, at the very minimum, receive a grade of “zero” for the item that was submitted. If the cheating occurred during a course exam, the incident will be reported to the Chemistry Department Chair and the Office of the CAS Dean. Depending on the seriousness of the incident, additional sanctions may be imposed.

**STUDENTS WITH DISABILITIES:** If you are a student with a documented disability and may need special accommodations such as extended time for exams, please contact Services for Students with Disabilities [www.luc.edu.sswd], Sullivan Center (773-508-3700). You may also want to schedule a time to meet with me to discuss your needs.

- Textbooks:**            Organic Chemistry, Seventh Edition, by L.G. Wade, Jr.  
Also recommended, but **not** required: “Solutions Manual for Organic Chemistry, Seventh Edition, by Wade”
- Optional:**            Darling Models, Kit # 1A (See: [www.molecularvisions.com](http://www.molecularvisions.com)) or similar molecular models kit (available at the bookstore)

As a possible study aid, you may want to consider purchasing a paperback by D.R. Klein entitled “Organic Chemistry as a Second Language: Translating the Basic Concepts” (published in 2004 by John Wiley & Sons, Inc.; ISBN 0-471-27235-3; [www.wiley.com/college/klein](http://www.wiley.com/college/klein)). The goals of the latter book are to help the student develop the skills required to solve a variety of problems in organic chemistry and to point out the fundamental principles in organic chemistry.

An additional study aid is a paperback by D.P. Weeks entitled “Pushing Electrons: A Guide for Students of Organic Chemistry,” Third Edition (Thomson Brooks/Cole); ISBN 0-03-020693-6. The first 3 chapters (pp. 1-161) of this workbook are intended to help a student understand “structure and bonding in organic molecules,” as well as techniques of “electron pushing” so as to comprehend reaction mechanisms.

Supplementary Textbooks:

Organic Chemistry, Tenth Edition, by T.W.G. Solomons and C. Fryhle (John Wiley & Sons, Inc., 2011).

Organic Chemistry, Eighth Edition, by J. McMurry (Brooks/Cole Publishing Co., 2012).

Organic Chemistry, by F.A. Carey and R.M. Giuliano, Eighth Edition (McGraw-Hill, Inc., 2011).

Organic Chemistry: Structure and Function, by K.P.C. Vollhardt and N.E. Schore, Sixth Edition (W.H. Freeman and Co., 2011).