

SYLLABUS FOR ORGANIC CHEMISTRY B
CHEMISTRY 224, SECTION 013
3.0 SEMESTER HOURS
SPRING SEMESTER, 2014

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, January 27 from 7:15 – 8:00 p.m. (to review “aromaticity” and proton NMR spectroscopy). In order to review material pertinent to each of the hour exams, discussion will be held on Mondays, February 10, March 10, and April 14 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, February 17, March 17, and April 21, discussion will be held from 7:20 – 8:00 p.m. --- at which time you will receive your “graded” exam and solutions to that exam’s questions will be discussed. At other times during the semester, 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: Organic Chemistry 223 or its equivalent. **NOTE:** If you received a final grade of D+, D, F, W, or WF in CHEM 223 last semester, you are **not** allowed to take Organic Chemistry B this semester.

Content: This course is the second semester of a comprehensive survey of aromatic and aliphatic organic chemistry, with particular emphasis on reactions. The topics include aromatic compounds, including phenols and aryl halides as well as a discussion of delocalized chemical bonding; aldehydes and ketones; enols and enolates; amines and nitrogen heterocycles; carboxylic acids and their derivatives; lipids such as fatty acids and triglycerides; β -dicarbonyl compounds; and carbohydrates.

Learning Outcomes: Students will develop an understanding of the chemical behavior of moderately complex organic molecules and the mechanisms by which such reactions occur. Students will also expand their knowledge of spectroscopy and its use as a powerful tool for structure determination of organic molecules. Finally, students will be introduced to the strategy used in planning the total synthesis of polyfunctional organic compounds, especially those possessing aromatic rings.

The essential **IDEA objective** for this course is building a sizeable knowledge base (*i.e.*, nomenclature, terminology, bonding, reactions, *etc.*) of organic compounds---**preferably, not by rote memorization**. Learning the fundamental principles and theories that relate to organic compounds, as well as learning to apply what you know from the course to solving problems, are also important course objectives.

Course Evaluation: After the withdrawal deadline (Monday, March 24th) for this course has passed, students will be given the opportunity to evaluate both the instructor and the course by using a survey form developed by **The IDEA Center**. You are **strongly encouraged** to complete this online survey form during the week following the course withdrawal deadline.

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, unless your absence is due to your required participation in a University-sanctioned event.

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, February 12 (7:15 – 8:00 p.m.); Hour Exam II will be administered on Wednesday, March 12 (7:15 – 8:00 p.m.); and the third hour exam is scheduled for Wednesday, April 16 (7:05 – 8:00 p.m.). The final exam for this course is to be given on Monday, April 28, 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 2nd 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 Monday, March 24. 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). Note: In regard to advice concerning a decision to withdraw (or not) from CHEM 224, a student can meet briefly with the instructor sometime after Hour Exam II (but prior to March 24) 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

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, Eighth Edition, by L.G. Wade, Jr.
Also recommended, but **not** required: “Solutions Manual for Organic Chemistry, Eighth Edition, by Wade”

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).