

SYLLABUS

Teaching Assistant: _____

Organic Chemistry Laboratory A
Chemistry 225: Summer I 2013

Description: A one-semester-hour laboratory course designed to accompany organic chemistry lecture courses.

Pre- and Co-requisites: Prior completion of and a grade of 'C-' or better in 1 year of General Chemistry Lecture and Lab and CHEM 223, respectively.

Materials: Catalyst by Tim Thomas, Chem 225 (ISBN: 0-536-94370-2)

Safety glasses are provided on the first day of class and must be brought to every lab. A full-length lab coat is also required.

Course Homepage: Course announcements, the current grade book, online assessments, etc. are posted on the course homepage (<http://sakai.luc.edu/>). You are responsible for this material, so you should check Sakai frequently.

Grading: Course grades consist of the following components:

| | |
|---|---------------|
| Best 10 of 11 results sheets, 10 pts each | 100 pts |
| Best 10 of 11 discussion questions, 20 pts each | 200 pts |
| 2 Exams, 100 pts each | 500 pts |
| <u>Library Assignments</u> | <u>50 pts</u> |
| | 550 pts total |

Course grades will be assigned on the following scale: A>92%, A->90%, B+>88%, B>82%, B->80%, C+>78%, C>72%, C->70, D+>68%, D>60%, F<60%

Pre-Lab Preparation: Success in organic lab depends on advance preparation. Therefore, there are several things you must do before coming to lab. One major component of your pre-lab assignment is to thoroughly read and understand the experimental procedure. If you have questions, consult your Teaching Assistant or the Lab Coordinator well before your lab section. Do not wait until the few minutes before class.

Results: At the end of each experiment, you must submit a Results sheet **before you leave the lab**. This sheet summarizes your laboratory results and is contained in your lab manual or distributed in class.

Discussion Questions: Discussion questions will be posted on Sakai. These should be completed after class and are due at the beginning of the next class period. No late work will be accepted.

Library Assignment: The library assignment has two parts. One deals with resources for finding information about organic compounds. The other covers tools for exploring the organic chemistry literature. Detailed instructions for the assignments and due dates will be posted on Sakai. All of the due dates are firm. No late work will be accepted.

Exams: The exams will cover all portions of the course—the assigned readings, laboratory procedures, topics discussed in class, etc.— and will be taken via Sakai. The online portion of Exam 1 will be available from 3:20 PM, June 5, 2013, until 12:30 PM, June 10, 2013. The online portion of Exam 2 will be available from 3:20 PM, June 24, 2013, until 5:00 PM, June 28, 2013. The online portion of exams must be submitted while they are still available.

Re-grades: All requests to have items re-graded must be submitted in writing within one week from when the graded materials were returned to the student.

Attendance: You are expected to attend every lab session. Due to safety constraints and size limitations, you will not be allowed to make up an experiment in another section. Missing a lab period will result in a zero for all work related to that experiment.

Students must be present for the pre-lab lecture because important safety-related information is covered. **Any student who misses any portion of the pre-lab lecture will not be allowed to perform the experiment and will be marked absent.**

Safety Rules: Read the safety rules carefully and follow them throughout the course. Anyone who does not adhere to the safety rules will not be allowed to remain in the laboratory.

Academic Integrity: Each student is expected to do her/his own work. Although the lab is constructed so students may work in pairs during an experiment, all work submitted for a grade must be an individual effort. The penalty for academic dishonesty is a grade of 'F' for the course.

Email: You must use your Loyola email address when contacting the TAs or the instructor for this course. Emails from outside sources are often blocked automatically. In the subject line of your email, put Chem 225- section number and TAs name.

Eye Protection: You will be provided a pair of safety goggles at the beginning of the course. You must bring your eye protection with you to every class. You may not leave your eye protection in your drawer because it may become contaminated. For several reasons—especially hygiene—you also may not borrow eye protection from your TA or the chemistry stockroom.

Electronic Devices: For safety's sake and in order to prevent contamination, the use of cell phones, laptop computers, MP3 players, etc. is not permitted in the lab. Use of these devices in lab will result in the student not being allowed to perform the experiment.

Zero-Tolerance Policy on Safety: Safely working with organic chemicals requires your complete attention. One important part of lab safety is the pre-lab lecture at the beginning of class-- when the TAs and the instructor discuss the chemicals that are going to be used that day. You must pay careful attention during the pre-lab. Activities that indicate that you are not paying full attention will result in you not being allowed to perform the experiment. Such activities include talking to classmates, using one's phone or other electronic devices (which are not allowed in lab), sleeping, doing homework, etc.

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Tentative Schedule—Subject to change

Organic Chemistry Laboratory A, Chemistry 225, Summer I 2013

May

| Monday | Tuesday | Wednesday | Thursday | Friday |
|---|-----------|--|-----------|---|
| 20 Syllabus, Glassware, Nomenclature | 21 | 22 Safety, Molecular Modeling, Library Training | 23 | 24 |
| 27 Memorial Day | 28 | 29 Functional Group Tests | 30 | 31 Measuring Physical Properties |

June

| Monday | Tuesday | Wednesday | Thursday | Friday |
|--------------------------------------|-----------|------------------------------------|-----------|-----------|
| 3 Distillation | 4 | 5 Crystallization | 6 | 7 |
| 10 Extraction | 11 | 12 Chromatography | 13 | 14 |
| 17 Chirality and Spectroscopy | 18 | 19 <i>t</i> -Butyl Chloride | 20 | 21 |
| 24 Cyclohexene | 25 | 26 Check Out/ Exam | 27 | 28 |