

SYLLABUS

Teaching Assistant: _____

Organic Chemistry Laboratory A
Chemistry 221L, sec 003: Fall 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 221, respectively.

Materials: Pearson Custom Laboratory Notebook
Chem 225, Fall 2013 Edition (ISBN: 1-269-25489-8)

Organic Chemistry Laboratory Techniques
Pearson Custom Library (ISBN: 1-269-24635-6)

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 7 of 8 Pre-lab Quizzes, 10 pts each	70 pts
Best 12 of 13 results sheets, 10 pts each	120 pts
Best 12 of 13 discussion questions, 10 pts each	120 pts
Best 8 of 9 Post-lab Quizzes, 20 pts each	160 pts
Technique Points	100 pts
<u>Library Assignments</u>	<u>30 pts</u>
	600 pts total

Course grades will be assigned on the following scale: A>94%, A->90%, B+>88%, B>84%, 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.

Pre-Lab Quizzes: The experiments marked with an asterisk on the calendar will begin with a short pre-lab quiz. Quizzes will primarily cover the assigned reading but may also contain relevant lecture and pre-requisite material.

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.

Notebook: As an incentive for you to do a good job preparing for lab, you may use your notebook on your pre-lab quizzes. At the end of each experiment, the TAs will collect the duplicates of your notebook pages and compile them for your use on the post-lab quizzes. This procedure is designed to ensure that the notebook is kept properly every lab period.

Discussion Questions: Discussion questions will be posted on Sakai. These should be completed after class and are due at the beginning of the next lab period.

Late Policy: Materials that are submitted late but on the same day as they were due will receive a 10% deduction. There will be an additional 25% deduction for each day or portion of a day, including weekends, they are late after that.

Technique: Your success in lab goes beyond what appears on paper. Attention to safety, housekeeping, level of preparation, ability to work with others, ability to follow directions, correctly completing procedures and ability to work independently are also important. Safety violations will be addressed immediately and are also described in a different section.

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.

Post-lab Quizzes: The post-lab quizzes will cover all portions of the course—the assigned readings, laboratory procedures, topics discussed in class, pre-requisite material, etc. Points will be deducted for not following the instructions on exams.

Re-grades: All requests to have items re-graded must be submitted in writing within one week after the graded materials are 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 in the first place), sleeping, doing homework, etc.

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Majors, CHEM 221L, sec 003

August

Monday	Tuesday	Wednesday	Thursday	Friday
26	27 NO LAB	28	29 Syllabus, Glassware, Nomenclature	30

September

Monday	Tuesday	Wednesday	Thursday	Friday
2 LABOR DAY	3 Library Training	4	5 Safety, Molecular Modeling	6
9	10 Post Lab Quiz #1	11	12 Functional Group Tests*	13
16	17 Post Lab Quiz #2	18	19 NO LAB	20 Lecture Exam
23	24 IR Spectroscopy	25	26 Physical Properties: MP, BP, Ref. Index*	27
30				

October

Monday	Tuesday	Wednesday	Thursday	Friday
	1 Post Lab Quiz #3	2	3 Distillation*	4
7 FALL BREAK	8 FALL BREAK	9	10 NO LAB	11 Lecture Exam
14	15 Post Lab Quiz #4	16	17 Crystallization*	18
21	22 Post Lab Quiz #5	23	24 Extraction*	25
28	29 Post Lab Quiz #6	30	31 Chromatography*	

November

Monday	Tuesday	Wednesday	Thursday	Friday
				1
4	5 Post Lab Quiz #7	6	7 NO LAB	8 Lecture Exam
11	12 Carbon NMR	13	14 2-Chloro-2-Methylpropane*	15
18	19 Post Lab Quiz #8	20	21 Cyclohexene*	22
25	26 Post Lab Quiz #9	27 Thanksgiving	28 Thanksgiving	29 Thanksgiving

December

Monday	Tuesday	Wednesday	Thursday	Friday
2	3 Proton NMR	4	5 Check Out	6