

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

Pre- and Co-requisites: Grade of 'C-' or better in 1 year of General Chemistry Lecture and Lab; Chem 223

Materials: Making the Connections<sup>2</sup> By Anne B. Padias (ISBN: 978-073804135-3)  
Permanently-Bound Composition Notebook

Safety goggles are provided during safety training and must be brought to every lab. A full-length lab coat is also required.

Course Homepage: Announcements, assessments, extra copies of the handouts, the grade book, etc. are posted on [Sakai.luc.edu](http://Sakai.luc.edu). You are responsible for this material, so you should check Sakai frequently.

Grading: Course grades consist of the following components:

8 Pre-lab Quizzes via Sakai, 5 pts each	40 pts
9 Results Sheets, 10 pts each	90 pts
10 Post-lab Homework via Sakai, 10 pts each	100 pts
Practical Exam	100 pts
Synthesis Exam	50 pts
Safety Points	<u>20 pts</u>
	<b>400 pts total</b>

A>94%, A->90%, B+>88%, B>84%, B->80%, C+>78%, C>74%, 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 and the assigned background reading listed on Sakai. Outlining the experiment and including a Table of Reagents in your laboratory notebook is strongly suggested. 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. Before coming to class, you must also complete the pre-lab quiz via Sakai. **NO ONE WILL BE ALLOWED TO PERFORM AN EXPERIMENT WITHOUT COMPLETING THE PRE-LAB QUIZ.**

Results: At the end of each experiment, you must submit a Results sheet to your TA before you leave the lab. This sheet summarizes your laboratory results and will be posted on Sakai or distributed in class. If a Results sheet isn't turned in before leaving the lab, it can be turned in before the start of the next lab period but it will only be worth half credit. No Results sheets will be accepted after the start of the next lab period.

Post-Lab Quizzes: Short questions pertaining to the experiment you have just completed will be posted on Sakai. These should be completed after lab ends and are due at the beginning of the next lab period.

Sakai Assessments: Students are allowed unlimited attempts for the pre-lab and post-lab quizzes on Sakai until the due date. The highest submitted score is kept. Assessments must be submitted to count. Work that is saved but not submitted before the deadline will be ignored. Late Sakai assignments will not be accepted. It is the student's responsibility to submit your work early so that there is time to resubmit in the event of technical difficulties. Deadlines for assessments on Sakai will not be extended under any circumstances. Spelling, grammar, and significant figures count.

**Exams:** The exams will cover all portions of the course—the assigned readings, laboratory procedures, topics discussed in class, pre-requisite material, etc. The practical exam will be done in the lab and involves understanding and demonstrating certain lab techniques. The synthesis exam will cover stoichiometry and the two synthesis experiments and will take place during the last lab period. Points will be deducted for not following the instructions.

**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 (pre-lab, results, and post-lab). However, with appropriate documentation—doctor's note, jury summons, etc.—the exam covering the missed material may be weighed more heavily to account for the missing points. Missing more than 2 experiments will result in automatic failure of the course.

There will be an attendance sheet that students are expected to sign upon entering the lab to ensure on-time arrival. 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 receive point deductions and may not be allowed to remain in the laboratory. You will be provided a pair of safety goggles at the beginning of the course. You must bring your eye protection and lab coat with you to every class, as well as dress in appropriate clothing and footwear.

**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.

**Contact:** Dr. Jessica Eisenberg, FH-104, (773) 508-8714, [jeisenberg2@luc.edu](mailto:jeisenberg2@luc.edu)

### Experiments

1. Introduction to Functional Groups
2. Boiling Point Determination
3. Melting Point Determination
4. Distillation
5. Extraction
6. Crystallization
7. Synthesis: Unimolecular Substitution
8. Synthesis: Elimination