SYLLABUS TA:_____

Organic Chemistry Laboratory A
Chemistry 225: Fall 2010
Life Sciences Building 115

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Description: A one-semester-hour laboratory course designed to teach basic organic chemistry laboratory techniques and to illustrate some of the topics covered in organic chemistry lecture courses.

Prerequisites: Prior completion of and a grade of 'C-' or better in 1 year of General Chemistry Lecture and Lab.

Materials: Catalyst by Tim Thomas, Chem 225 (ISBN: 0-5369-4370-2)

Goggles will be provided on the first day and must be brought to every class. A lab coat or apron is recommended.

Grading:		
	8 online quizzes, 5 pts each	40 pts
	3 assignments, 10 pts each	30 pts
	2 in-class exercises, 5 pts each	10 pts
	8 results sheets, 10 pts each	80 pts
	2 exams, 100 pts each	200 pts
	Technique	40 pts
		400 pts total

Course grades will be assigned on the following scale: A>95%, A->92%, B+>90%, 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 background material and the experimental procedure. A reading list is attached to this syllabus. If you have questions, consult with your Teaching Assistant or the Lab Instructor well before your lab section. Do not wait until the few minutes before class.

Quizzes: A short quiz must be completed on Blackboard before class. Quizzes are based on the assigned reading, relevant lecture material, prerequisites, etc. STUDENTS WHO DO NOT COMPLETE THE QUIZ WILL NOT BE ALLOWED TO PERFORM THE EXPERIMENT.

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.

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 described in a different section.

Assignments: There are three out-of-class assignments for the course. One covers software for drawing and modeling organic structures. A second deals with resources for finding information about organic compounds. The third covers tools for exploring the organic chemistry literature. Detailed instructions for the assignments and due dates will be posted on Blackboard. All of the due dates are firm. No late work will be accepted.

Exams: The exam will cover all portions of the course—the assigned readings, laboratory procedures, topics discussed in class, etc. A portion of the exams also consists of a hands-on assessment of your laboratory technique.

Lab Drawers: The lab drawer is a shared space. At least one other section will be using it. Therefore, you should not leave any personal items in your drawer. You should also leave the drawer in a good condition at the end of the lab period. The Teaching Assistant will not accept your Results sheet until she/he has inspected your lab drawer. The Teaching Assistant may also deduct Technique points if the drawer or other areas of the lab—such as balances, sinks, etc.—are not left in a satisfactory condition at the end of the lab period.

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. If you miss an experiment for a justifiable reason—court summons, death in the immediate family, serious illness, etc.—you must notify the lab instructor in writing within 24 hours. Documentation will be required. If your absence is approved, you will be allowed to perform a make-up experiment at the end of the semester to replace the missing experiment score. However, you are still responsible for completing the pre-lab quiz and for all of the material on the exams. A maximum of one and only one excused absence will be allowed for each student for each semester. Any additional missed work will receive a zero.

You should also come to lab on time. For safety reasons and fairness to your lab partner, you must arrive in time to hear the pre-lab lecture. Any student who is late by 10 minutes or more will not be allowed to perform the experiment and will be marked absent.

Safety Rules: These are contained the textbook and will be read aloud in class. 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. **Failure to adhere to the safety rules will also be reflected in the technique score.**

Registration: You must attend the section for which you are officially registered. Any change of section must be accomplished through the Registrar.

Equipment: When you are using equipment (the glassware in your drawer, hot plates, heating mantles, voltage controllers, etc.), you are responsible for it and you may be charged if items are missing or damaged.

Academic Integrity: Each student is expected to do her/his own work. Although the lab is constructed so students work in pairs during an experiment, all work submitted for a grade must be an individual effort. The minimum punishment for academic dishonesty is a zero on the assignment in question and reduction of the final course grade by a letter. Any subsequent incidents will result in an 'F' in the course. The incident will also be reported to the Chair of the chemistry department and, at the Chair's discretion, to the Office of the Dean-- where additional sanctions, including expulsion from the university, may also be imposed. Consult the current Undergraduate Studies catalog for a complete description of University policies regarding academic dishonesty.

Email: You must use your Loyola email address when contacting the TAs or instructor for this course. Emails from outside sources are often blocked automatically.

Blackboard: Course announcements, the current grade book, handouts, etc. are posted on the course homepage (http://blackboard.luc.edu/). You are responsible for this material, so you should check Blackboard frequently.

Full Schedule: Organic Chemistry Laboratory A, Chemistry 225, Fall 2010

August

Monday	Tuesday	Wednesday	Thursday	Friday
30 Orientation	**31** Orientation			

September

Monday	Tuesday	Wednesday	Thursday	Friday
		1 Orientation	**2** Orientation	**3** Orientation
6 LABOR DAY	**7** Safety/ Modeling	**8** Safety/ Modeling	**9** Safety/ Modeling	**10** Safety/ Modeling
13 Safety/ Chemical Information/ Modeling	**14** Chemical Information	**15** Chemical Information	**16** Chemical Information	**17** Chemical Information
20 Organic Chemical Behavior	**21** Organic Chemical Behavior	**22** Organic Chemical Behavior	**23** Organic Chemical Behavior	**24** Organic Chemical Behavior
27 Melting Point	**28** Melting Point	**29** Melting Point	**30** Melting Point	

October

Monday	Tuesday	Wednesday	Thursday	Friday
				1 Melting Point
4 Distillation	**5** Distillation	**6** Distillation	**7** Distillation	**8** Distillation
11 FALL BREAK	**12 FALL BREAK**	**13 FALL BREAK**	**14 FALL BREAK**	**15 FALL BREAK**
18 Exam 1	**19** Exam 1	**20** Exam 1	**21** Exam 1	**22** Exam 1
25 Crystallization	**26** Crystallization	**27** Crystallization	**28** Crystallization	**29** Crystallization

November

Monday	Tuesday	Wednesday	Thursday	Friday
1 Extraction/ TLC	**2** Extraction/ TLC	**3** Extraction/ TLC	**4** Extraction/ TLC	**5** Extraction/ TLC
8 2-Chloro-2-Methylpropane	**9** 2-Chloro-2-Methylpropane	**10** 2-Chloro-2-Methylpropane	**11** 2-Chloro-2-Methylpropane	**12** 2-Chloro-2-Methylpropane
15 Octenes	**16** Octenes	**17** Octenes	**18** Octenes	**19** Octenes
22 NO LAB	**23 Thanksgiving**	**24 Thanksgiving**	**25 Thanksgiving**	**26 Thanksgiving**
29 Exam II and Check Out	**30** Exam II and Check Out			

December

Monday	Tuesday	Wednesday	Thursday	Friday
		1 Exam II and Check Out	**2** Exam II and Check Out	**3** Exam II and Check Out
6 Make-up	**7** Make-Up	**8** Make-up	**9** Make-up	**10** Make-up

Chem 225 Reading Assignments[1]

Introduction		169
Safety/ Modeling		171-176 Modeling Handout
Chemical Information		Handout
Organic Chemical Behavior	Operation 1:	pp. 3-4
	Procedure:	pp. 177-184
Melting Point	Operation 30:	pp. 137-143
	Procedure:	pp. 185-192
Distillation	Operations 5, 27:	pp. 13-16, 122-135
	Procedure:	pp. 193-200
Crystallization	Operations 7, 12, 13, 25:	pp. 20-32, 40-43, 43-46, 104-118
	Procedure:	pp. 201-206
Extraction	Operations 15, 22:	pp. 48-57, 93-98
	Procedure:	pp. 207-214
Chromatography	Operations 19, 20	pp. 80-87
	Procedure	pp. 215-224
2-Chloro-2-methylpropane	Operations 6, 11:	pp. 16-19, 37-39
	Procedure:	pp. 225-230
Octenes	All of above	
	Procedure:	pp. 231-236

Lab Coordinator: Tim Thomas, LSB 124, (773) 508-8115, TTHOMA1@LUC.EDU

[1] All experiments are Standard Scale.