

## CHEM 3AL Section 113 Syllabus

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**Meeting Time:** Monday, 1pm-5pm, 320 Latimer  
**Office Hours:** Friday 9am-11am

Welcome to CHEM 3AL, the organic chemistry laboratory. This syllabus contains specific expectations and policies associated with this section of the lab course. You are responsible for knowing the contents of this specific section syllabus in addition to the general course syllabus. Note that this is NOT a comprehensive document, so for course-wide policies, such as grading information, please refer to the course syllabus and lab manual.

### **General Information**

This laboratory course provides you with a hands-on introduction to the basic techniques used in chemical research, allowing you to put into practice the concepts and reactions you will be covering in lecture. One of the most important things you can get out of this course is the ability to think critically and analytically about problems, skills that are widely applicable in scientific research, medicine, and daily life. My job as your GSI is to help facilitate the development of your analytical skills, guide you through the successful completion of your experiments, ensure a safe and enjoyable laboratory environment, and help you understand the connections between chemical practice, theory, and application.

### **Communication**

Just as you are not a full-time 3AL lab student, I am not a full-time 3AL GSI. In addition to my duties with this course, I am taking several classes, attending seminars, and beginning to conduct my own research. Thus, I cannot always be available to respond to e-mails or do so in great detail. While I will try my best to respond promptly, I reserve the right to take up to 2 days to respond to any requests made by e-mail. The best questions to ask by e-mail are simple clarification questions. It is time-consuming and difficult to respond to more involved questions via e-mail, particularly those concerning reaction mechanisms. Do not be surprised or insulted if I reply with something to the effect of: "This question is a little too involved to be adequately explained through e-mail. Please stop by my or any GSI's office hours to discuss this in detail."

### **Lab Management**

Most experiments we will be doing in this course will be done in groups. Science is a very social discipline, and working with and learning from others is an integral part of this course. As there are many of you and only one of me, you will need to rely on each other to successfully complete each experiment. It is important that you not only learn from but challenge each other to think critically about the problems you encounter. To ensure a diversity of opinions and encourage a wide array of interactions, groups will be randomly assigned week-to-week. It is my hope that by the end of the course, you will have had the opportunity to work with everyone in the class and benefit from the diversity of opinions, ideas, and perspectives you all bring to the laboratory.

## **Pre-lab**

You **MUST** come to lab each week with a complete, written pre-lab in your notebook. The pre-lab must contain enough information so that you can safely and successfully complete the experiment with it as your sole resource. Before you can begin any lab work each week, I must check and initial your pre-lab write-up. If you enter the laboratory without a completed pre-lab, you will receive a zero for the experiment and be forced to leave the laboratory. Consult the CHEM 3AL lab manual (pages 9-12) for instructions on what is required in the pre-lab.

## **Safety**

Safety is our primary concern, and we all need to do our part to ensure safety in the laboratory. If at any point, you are unsure if what you are about to do is safe or notice a potentially unsafe situation, ask or notify me immediately! Your lab manual contains a comprehensive list of safety measures (pages 3-7), but here are some points that are always worth repeating:

- No eating, drinking, smoking, gum chewing, or applying cosmetics in the laboratory.
- You **MUST** wear goggles, closed-toe shoes, and long pants/skirt that sufficiently cover your legs (ie, no skin can be shown).
- Keep all organic solvents away from open flames. **NEVER** heat a closed system. Turn off the gas as soon as you are done.
- All personal items must be stored in the designated area. Nothing except your notebook and a pen is allowed on the laboratory benches.

Violation of these rules within a laboratory period will result in the following penalties:

- 1<sup>st</sup> offense: Warning
- 2<sup>nd</sup> offense: A stern warning, and a closer watch will be kept on your group
- 3<sup>rd</sup> offense: Removal from the lab and a zero for the experiment

At the start of each experiment I will give a short (10-15 minute) safety talk. You **MUST** be present for the entire talk in order to participate in the lab. If you are late (meaning you enter the room after I have begun the safety talk) you will **NOT** be allowed to perform that day's experiment and will receive a zero.

## **Post-lab**

It is imperative that you complete the experiment, completely clean up your area, and leave the lab before 5pm. At 4:40, you will be required to stop all work and begin cleaning up. At 5pm, if you are not done, I will be forced to kick you out. Successful time management is critical! In addition, a different group of students will be responsible for ensuring the common areas (balances, instruments, etc.) are cleaned each week. If everyone does their part to keep the common areas clean throughout the lab, this does not need to be a difficult job.

Before you leave the lab, I must initial your experimental notes and you must turn-in a copy of your notebook. Without **BOTH** sets of my initials (pre-lab and post-lab), I cannot grade your work. Make sure you lock your drawers and take all personal belongings with you when you leave.