

CHEM 344 Modern Organic Chemistry Laboratory

Spring 2018 Course Syllabus

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Chemistry B303B

Note that the last day to drop the course is January 19th, 2018. Withdrawals from the course are only authorized under extraordinary circumstances – this is not an option for students who are unhappy with their performance.

Course Information and Meeting Times

CHEM 344 is a two-credit laboratory course. Labs meet for 2 hours and 50 minutes, two times per week.

Required Materials

Lab Experiments: Posted online on the Canvas course website. It is **your** responsibility to download and print the experiments in a timely manner so that you can complete your pre-lab work. **Note that the labs are posted in ALPHABETICAL order - check the schedule before printing.**

Laboratory Notebook: Customized Lab Record, Organic Chemistry 100 Carbonless Sets (Hayden-McNeil Publishing, Inc.). This is available at the bookstore in the textbook section.

Safety goggles/glasses: For sale at the bookstore or in the Chemistry Stockroom (located in the D wing of the Chemistry Building on the first floor).

Gloves (nitrile): Also for sale in the Chemistry Stockroom.

Course Goals

In this class, you will learn basic organic chemistry laboratory technique and conduct experiments in chemical synthesis. In addition to the time spent in the lab, you should expect to spend six hours per week on this course outside of the lab completing lab reports, writing pre-labs and studying for quizzes. There is a considerable amount of work that you will need to do for each lab report on your own time.

Good record keeping is tantamount to your success in this course. You **must** keep track of your data during the course of an experiment. Data without analysis does not suffice, however; if you wish to be successful in this course, you must analyze your results carefully and thoughtfully in your lab reports.

This is a course that emphasizes critical thinking. Your TA, the instrument room staff and the lab coordinator are here to help you, but you should not expect to have answers handed to you. Quizzes and lab reports require you think and analyze data, not recite the contents of the lab manual.

Expectations

When in the lab, you must wear appropriate clothing: shirts with sleeves, long pants or skirts to the ankle and shoes with a closed toe and heel. Short T-shirts, tanks tops, Capris, low-rise pants, sandals and Crocs are unacceptable. **You will not be allowed to work in the lab without safety glasses/goggles, appropriate clothing and shoes. The organic stockroom does not supply these items, including safety glasses.**

IF YOU ARE NOT DRESSED APPROPRIATELY FOR LAB, YOU WILL NOT BE PERMITTED TO STAY, NOR WILL YOU BE GIVEN THE OPPORTUNITY TO MAKE UP THE LAB.

For safety reasons, cell phone use during lab is not permitted. The use of MP3 players or similar devices with earphones is not permitted in the lab.

Always check the schedule of experiments given on the last page of the syllabus. There is considerable work to be done in preparation for an experiment.

IF YOU DO NOT HAVE A COMPLETED PRE-LAB UPON ARRIVAL TO LAB, YOU WILL NOT BE PERMITTED TO STAY IN LAB, NOR WILL YOU BE GIVEN AN OPPORTUNITY TO MAKE UP THE LAB.

You are expected to complete your work in the time allotted. This means that you must arrive on time and leave on time. Your TA is responsible for time management in the lab. When your TA tells you to stop working, you must stop working or you will be removed from the lab. You **must** leave the lab when the scheduled class period is over.

For every minute you remain in the lab after the end of the period, you will lose five points. If you are still in the lab ten minutes after the end of the period, you will receive a zero on the experiment.

Canvas

Grades will be posted by your TA on Canvas. Limited information about the course will also be available, e.g., the syllabus, schedule and some experimental data. Other pertinent information to the course may be posted throughout the semester; your TA will tell you as these instances arise. Occasionally, announcements may be made on the course page as well.

Makeup labs

Labs begin the first day of classes. Attendance is **mandatory** for all experiments. Experiments must be supervised – you will not be permitted in the lab without your TA.

DUE TO VERY HIGH ENROLLMENT, YOU ARE NOT GUARANTEED A MAKEUP LAB UNDER ANY CIRCUMSTANCES.

If you must miss a lab for a University excused absence (unavoidable travel with a sports team, for instance), you must notify the lab coordinator by email **at least one week** prior to the date. **If you do not contact the lab coordinator in the time specified, it is likely that there will be no opportunities available to you to make up the missed lab – if this is the case, you will receive a zero for the experiment.** Note that makeup labs will not be granted for personal reasons, e.g., work or illness.

Check-out

Check-out takes place during the last lab period. **This is the only time you are allowed to check out. If you do not complete the check out procedure, you will be penalized five percent of your grade.**

Grading

Your grade in the lab course is based upon the total number of points accumulated during the semester on quizzes and lab reports. Points are earned as described below.

Quizzes: Quizzes are worth 15 points each. Quizzes are given at the beginning of each lab period and include questions from **both** the previous experiment and the experiment for that day. Any referenced reading at the beginning of an experiment is fair game for quiz questions.

Daily Technique Grade: Each student will earn five points per day (assigned by the lab coordinator) **if** all safety rules are obeyed and the lab is left in acceptable condition at the end of the class. In order to earn these points, everyone must be dressed appropriately, **including safety glasses**, at all times. The lab must be clean – the back bench, balances and sinks must be wiped down and the vacuum traps must be emptied. All equipment must be returned **neatly** to its appropriate shelf. All clamps, stands, hotplates, Mel-Temps

and other equipment/glassware must be removed from the hood, and the hood must be cleaned and wiped down. All reagent jars and waste bottles must be capped. **If even one person does not comply with these requirements, the ENTIRE class could lose their points for the day.**

All drawers must be locked. If you leave your drawer unlocked, you will lose 5 points from your grade.

Lab Reports: Lab reports are worth 40 points each. For a description of what the report should contain, please see the guidelines on Canvas. There are also sample lab write-ups posted on Canvas.

Due Dates and Late Work Policy

All sections of the pre-lab (purpose, table of constants and procedure reference) must be completed **prior** to coming to lab. Your TA must sign off on this part of your lab notebook before you will be allowed to begin the experiments. If you do not have a completed pre-lab upon your arrival, you will not be permitted to complete the experiment. If an experiment is scheduled for two lab periods, the pre-lab should include information for both days. Your TA will sign off on your observations before you leave the lab.

All notebook pages and the completed lab write up are due at the beginning of class **one week** after completing the experiment; i.e., a lab completed on Monday is due at the beginning of class on the following Monday.

LATE WORK IS NOT ACCEPTED.

Your graded lab report should be returned to you within one week of the due date. If your graded report has not been returned to you within one week, please notify the head TA using the contact information at the top of the syllabus.

Course Grade

Your final grade in the course will be determined by the laboratory instructor, in consultation with your TA. Grading will be normalized across sections. The labs use the +/- scale for grades.

Your lowest quiz score and lowest exam score will be dropped from the grade calculation. The lowest lab score will also be dropped. Note that these grades will not be removed from Canvas so that you have a record of your grades.

Academic Dishonesty

Academic dishonesty includes – but is not limited to – falsifying experimental data, copying any part of another student’s lab report or quiz answer or bringing information for a quiz into the room. Occasionally, you will be sharing data with other students. When these situations arise, you **must** cite your source or it will be considered plagiarism. All cases of suspected academic dishonesty will be reported to the Office of Student Conduct. Academic dishonesty will not be tolerated. The *minimum* penalty for academic dishonesty is failure on the assignment. The *probable* penalty is immediate dismissal from the course with a failing grade.