



ORGANIC CHEMISTRY II LABORATORY

CHEM 3145 Syllabus

INSTRUCUTOR INFORMATION AND CONTACT

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Office Hours:

M 10:00 AM –12:00 PM

R 12:00 PM –3:00 PM

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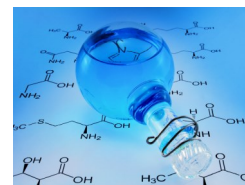
Office Hours:

T 2 - 4 PM

R 11:45 AM - 12:45 - PM

Course Description

Continuation of CHEM 3143 including an introduction to the characterization of organic compounds using classical and spectroscopic methods



COURSE MEETING TIMES AND LOCATION

Section	Day/Time	Room	Instructor
001	Wednesday/ 5:30-9:30 PM	RBS 2015 / RBS 4012	Black
002	Monday / 5:30-9:30 PM	RBS 2015 / RBS 4012	Glaesemann
003			
006			
004			
005			

PREREQUISITES AND COREQUISITES

Organic Chemistry 1 (CHEM 3342)

Organic Chemistry 1 Laboratory (CHEM 3143)

Organic Chemistry 2 (CHEM 3344), currently enrolled or previously completed

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Student Learning Objectives

1. Better understand the principles and topics of organic chemistry which have been discussed in the lecture course.
2. Safely handle laboratory glassware, equipment, and chemical reagents using general guidelines and basic knowledge about the common hazards associated with operations performed in an organic chemistry laboratory.
3. Perform synthetic organic techniques as well as learn to use common equipment and apply methodologies found and used in the routine organic chemistry laboratory.
4. Demonstrate good laboratory technique, which is not only important to the student of chemistry, but also to the student of other professional fields that require skill and manual dexterity, such as: medicine, dentistry, pharmacy, biology, and physics.
5. Perform the laboratory skills needed to determine the chemical and physical properties of organic compounds.
6. Make careful and meaningful observations.
7. Interpret laboratory results and data correctly within inherent limitations on precisions and report findings in a scientific notebook using acceptable and appropriate notational and descriptive content that is in turn understandable and reproducible.
8. Demonstrate mental skills needed to assimilate and correctly interpret scientific data.
9. Write in such a manner that clearly presents scientific data (*e.g.* possessing the ability to reiterate meaningful observations and form logical conclusions based on experimental data).
10. Demonstrate *original* thought and the use of *logic* in the solution of problems.
11. Recognize and acquire attitudes that are characteristic of successful workers in scientific fields: initiative, originality, resourcefulness, accuracy, orderliness, open-mindedness, and the pride of achievement.
12. Use a variety of spectroscopic techniques as an aid to determine functional groups and molecular structure.

Laboratory Attendance Policy

Attendance is **required** in the laboratory. **You cannot perform an experiment if you are not present!** Unexcused absences will result in a *grade of zero for any and all* work missed. Only students with **OFFICIAL** excused absences (see University Policies) will be allowed to receive a grade for work missed during the absence. It is the student's responsibility to see the instructor to make up any work missed during an absence.

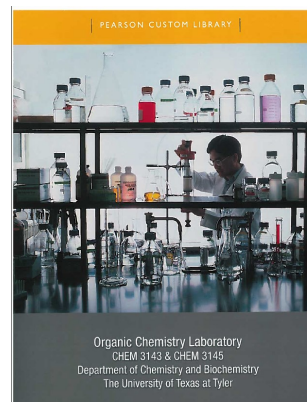
Census Date and Last Day to Withdraw

Deadline for all registrations, schedule changes, and section changes is **Friday, September 1, 2023.**

The last day to withdraw from one or more courses is **Monday, October 30, 2023.**

Required Materials

1. **TEXTBOOK** Organic Chemistry Laboratory
 Author: John W. Lehman
 ISBN: 978-1-323-35212-0
2. **Laboratory Notebook with Carbonless Copies**
3. **Indirectly-vented Safety Goggles**
4. **Scientific Calculator**



Recommended Materials

1. Laboratory apron or coat.



CANVAS LEARNING SYSTEM

This course will be hosted on UT Tyler's Canvas server. You may access your Canvas account online at <http://www.uttyler.edu/canvas>

This site will contain a significant amount of information that will help you in this course.

To log on to Canvas and to view this course, complete the following:

1. Go to <http://www.uttyler.edu/canvas> or follow the "Canvas Log-in Link" at the top of the UT Tyler home page (www.uttyler.edu) under "UT Tyler Logins."
2. Enter your "Username" and "Password". This will take you to your personal Canvas home page. You will see this page every time you "Login" to the Canvas server. This is NOT your course; this is just your Canvas home page.
3. You will see all of the courses for which you are registered. If you are enrolled in a class that you should not be enrolled in, contact the instructor for that course. Note: not all instructors will use Canvas even if there is Canvas course for it.
4. If you are having trouble with your Canvas account, please send an email to itsupport@patriots.uttyler.edu or stop by the Campus Computing Center in BUS 101.

Experimental Preparation and Time-Efficiency

The laboratory experiments are planned and designed in a manner such that the student can easily complete the work during the assigned time. This can be accomplished only if the student has done a reasonable amount of study and preparation before coming to the laboratory. Efficiently using the time assigned for an experiment is a critical part of the course. As such, a student who consistently goes beyond the assigned laboratory time may be asked to stop working after the allocated time has expired and be assigned a grade for the portion of the experiment completed. Moreover, careful preparation and planning what you are going to do in each experiment before coming to lab will aid the student in avoiding serious mistakes.

Laboratory Notebooks

Students are required to keep a laboratory notebook for this course. The notebook is to be a complete record of all experiments performed in the laboratory during this semester.

A lab notebook is perhaps one of the most valuable pieces of equipment a chemist can own. In addition to being a record of your work, it should allow anyone who studies it to duplicate your work. It also allows you to determine what happened in a previous experiment and figure out where an experiment went wrong. General notebook guidelines will be given the first day of lab.

Grading Policy

We will be very careful and consistent in the grading of your reports and quizzes, however errors in grading are possible. Questions concerning the grading of a report, quiz or exam should be submitted to the professor of your lab section in writing *before* the next scheduled class meeting after the item was returned to you. Alternatively, you may see your professor during office hours (or any other time you find them available) with the suspect report or quiz in hand. All scores will be considered final one week after originally being returned to you.

Safety in the Laboratory

“Know Safety, No Injury – No Safety, Know Injury”

The organic chemistry laboratory is potentially one of the most dangerous of the undergraduate laboratories. That is why you must have a set of safety guidelines (see handout). It is a very good idea to pay close attention to these rules. Disobeying safety rules can lead to **SERIOUS INJURY OR DEATH** of not only yourself, but others as well.

We will discuss relevant safety concerns before each laboratory experiment and will provide you with detailed safety information when necessary.

Course Grade

Experimental:	60%
Quizzes:	10%
Exam:	25%
Overall Proficiency:	5%

Experimental (60% of Total Grade) will be based on

Lab Reports (5)

1. Laboratory Notebook
2. Experimental Procedure (Quality of your Lab Technique)
3. Experimental Results (Quality of Your Results)
4. Preparation in Lab (Orderliness, Cleanliness, Overall Preparedness)

Paper Labs (3)

Quizzes and Exam (35% of Total Grade)

There will be a series of eight (8) quizzes that will be available on Canvas. These quizzes are due before the start of lab and will usually be available a week before that lab period. These quizzes will cover material that you should have read prior to lab and information covered in the pre-lab lecture PowerPoint (also available on Canvas).

There will be one in-class exam. This exam is important in accessing your understanding of key concepts learned in the course and you should take it seriously.

Overall Proficiency (5% of Total Grade)

This is determined through observation made by your instructor. We should be able to see an overall progression of your laboratory skills throughout the course. During an experiment, when you make a mistake, we want to see that you learn from that experience. We should see improvement in your technique (glassware breakage; time-efficiency), the types of questions that are asked (do you ask the same questions each week?), *etc.* In addition, we will be looking at your attendance/punctuality (you cannot be late time after time or miss an experiment and expect to receive a satisfactory grade) and attitude throughout the semester. Below are point deductions that could occur based on your individual performance; this is not an exhaustive list. The main points are: come prepared, learn from mistakes, and do your part.

Breaking glassware

Coming to lab late

Not wearing proper attire

Forgetting goggles

Not relying solely on lab notebook

Relying only on partner to complete entire experiment

*Grades will tentatively be based on a 90/80/70/60 scale, but may be adjusted based upon evaluation of the overall class

Departmental Cell Phone Policy



Cell phones, smart watches, and any similar electronic devices must be turned off and put away during exams. If they are observed out in a visually accessible place (*i.e.* between legs, on the floor, *etc.*), it will be assumed that they are being used to cheat; your exam will be taken away, you will receive a zero score (0 points) for the test, and you will be referred to the Office of Judicial Affairs.

Student Academic Conduct

In this course, students are encouraged to study and to prepare for quizzes, exams and laboratory experiments with one another. ***However, when taking quizzes and exams, students are to work alone. Students should turn in original work and those retaking this course may not turn in previously completed work from past semesters. All lab reports must be the individual student's original work and never copied and pasted.***

Cheating and/or plagiarism* will not be tolerated. The University regulations are very explicit about academic misconduct, and these regulations will be fully enforced. ***During quizzes, a code of honor will apply under which students are to work alone and neither give help to others nor receive help from any sources.*** Students also are expected to help enforce this code. The minimum penalty for cheating will be a zero on the quiz or assignment in question. **Maximum penalties, up to university expulsion, will be pursued in extreme or repeat cases.**

[*plagiarism - The practice of taking someone else's work or ideas and passing them off as one's own. (This includes the instructor's PowerPoint presentations and any other material given out during the course).]

Students are encouraged to obtain a copy of *A Student Guide to Conduct and Discipline at UT Tyler*, avail-

Conduct Toward Others

As you know, this is a chemistry course. Chemists come from all walks of life (*e.g.* varying ethnicities, different religious beliefs, gender, *etc.*) and it is important as scientists to be able to work professionally with others in different environments. Under ***no circumstances*** will any derogatory remarks or actions toward race, gender, religion, and the like be tolerated in this course.

UT Tyler a Tobacco-Free University

- All forms of tobacco will not be permitted on the UT Tyler main campus, branch campuses, and any property owned by UT Tyler. This applies to all members of the University community, including students, faculty, staff, University affiliates, contractors, and visitors.
- Forms of tobacco not permitted include cigarettes, cigars, pipes, water pipes (hookah), bidis, kreteks, electronic cigarettes, smokeless tobacco, snuff, chewing tobacco, and all other tobacco products.

There are several cessation programs available to students looking to quit smoking, including counseling, quitlines, and group support. For more information on cessation programs please visit www.uttyler.edu/tobacco-free.

Campus Carry Policy

“We respect the right and privacy of students who are duly licensed to carry concealed weapons in this class. License holders are expected to behave responsibly and keep a handgun secure and concealed. More information is available at <http://www.uttyler.edu/about/campus-carry/index.php>.”

University Policies

To see a list of the general University policies please follow this link: www.uttyler.edu/academicaffairs/syllabuspolicies.pdf

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link:

www2.uttyler.edu/wellness/rightsresponsibilities.php