Spring 2026

ORGANIC CHEMISTRY II LABORATORY

CHEM 3145 Syllabus

INSTRUCTOR CONTACT

Dr. Bryan Tuten
Office: RBS 3029
Phone: 903-566-7348
Email: btuten@uttyler.edu
Office Hours: T 1:30 pm—3:30 pm
W 1:00 pm– 3:00 pm

Dr. Jiyong Lee
Office: RBS 3007
Phone:
Email: jiyonglee@uttyler.edu
Office Hours: MW 10:30 am—1:00 pm

Dr. Josh Lutz
Office: RBS 3013
Phone:
Email: jlutz@uttyler.edu
Office Hours:

Dr. Sean Butler
Office: RBS 3031
Phone:
Email: sbutler@uttyler.edu
Office Hours:

Colleen Trainor, MS
Office: RBS 3033
Phone:
Email: ctrainor@uttyler.edu
Office Hours:

Sarah McBride, BS
Office: East end hallway, RBS third floor
Phone:
Email: smcbride4@patriots.uttyler.edu
Office Hours:

Dante Glover, BS
Office: East end hallway, RBS third floor
Phone:
Email: dglover@uttyler.edu
Office Hours:

COURSE MEETING TIMES AND LOCATION

Section	Day/Time	Room	Instructor
001	Monday/ 1:00-5:30 PM	RBS 2015/4012	Tuten
002	Tuesday/ 1:30 PM-5:30 PM	RBS 2015/4012	McBride
003	Tuesday/ 5:30 PM-9:30 PM	RBS 2015/4012	Glover
006	Wednesday/ 1:00 PM-5:00 PM	RBS 2015/4012	McBride
007	Wednesday/ 5:00 PM-9:00 PM	RBS 2015/4012	Trainor
008	Thursday/ 1:30 PM-5:30 PM	RBS 2015/4012	Tuten

PREREQUISITES AND COREQUISITES

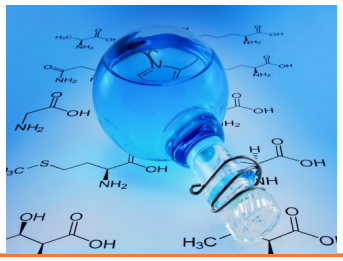
Organic Chemistry 1 (CHEM 3342)

Organic Chemistry 1 Laboratory (CHEM 3143)

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

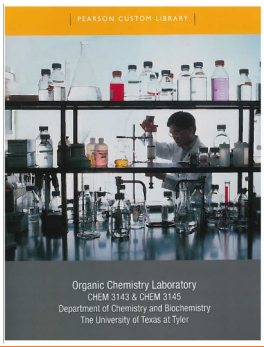
Course Description

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



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.

STUDENT LEARNING OUTCOMES

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 matter 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 posted on canvas) 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 **January 26th**

The last day to withdraw from one of more courses is **March 30th**

Late Work Policy

Lab reports that are turned in after the due date posted on Canvas will incur a 10% penalty per day.

If you have a University approved absence that will cause you to be out of town at the time of a due date, you must turn in the assignment before your departure or work with your instructor to make other arrangements if completing the assignment before is not possible. Your instructor is *not required* to gran you an extension.

Pre-lab quizzes that are not completed by the start of the lab section will **not** be accepted late and you may be asked to leave the lab if you are not prepared since this lack of preparation can put other members of the lab at risk.

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.

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 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 must 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. 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 GRADING

Experimental:	**75%**
Quizzes:	**10%**
Final Exam:	**15%**

Experimental (75% of Total Grade) will be based on

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)
5. Lab Reports submitted on Canvas

Quizzes and Exams (25% of Total Grade)

There will be pre-lab quizzes that will be available on Canvas. These quizzes are due before the start of lab. 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 cumulative exam at the end of the semester. This exam is vitally important in assessing your understanding of key concepts learned in the course and you should take it seriously. During this exam, the use of any online resources is considered cheating. This includes sites like Chegg, Reddit, Course Hero, etc. If any exam materials are found on these sites, all information will be collected and turned over to the Office of Judicial Affairs on campus.

Departmental Cell Phone Policy

Cell phones, smart watches, and any similar electronic devices must be turned off and put away during exams. If they 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 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 or 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.***

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.**

[*plagarism - 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*, available in the Office of Student Affairs.

University Policies

To see a list of the general University policies please see the Syllabus page on the Canvas course or follow this link: University Policies and Information: CHEM-3145 (2024-FALL) 001,002 (instructure.com)

To know and understand the policies that affect your rights and responsibilities as a student at UT Tyler, please follow this link: https://www.uttyler.edu/wellness/rightsresponsibilities.php

University of Texas at Tyler

CHEM 3145: Organic II Laboratory

Spring 2026
Schedule

Week of	Lab Activity
Jan 12	Introduction to Course – Syllabus, Schedule, Lab Notebook, Safety
Jan 19	NO LAB THIS WEEK—Martin Luther King Jr. Day
Jan 26	Experiment 1 (Handout on Canvas): Separation and Analysis of "Panacetin" Quiz 1 Due: E1 Pre-lab Write-up
Feb 2	Experiment 2 (Lehman, p. 51): Testing Markovnikov's Rule (Week 1) Quiz 2 Due: E2 Pre-lab Write-up
Feb 9	Experiment 2 (Lehman, p. 51): Testing Markovnikov's Rule (Week 2) Quiz 3 Due: E1 Lab Report
Feb 16	NMR Lecture 1 Due: E2 Lab Report
Feb 23	NMR Lecture 2 Quiz 4 Due: NMR Assignment 1
Mar 2	No experiment—Make-up lab
Mar 9	NO LAB—Spring Break
Mar 16	Experiment 3 (Lehman, p. 59): Borohydride Reduction of Vanillin Quiz 5 Due: E3 Pre-lab Write-up
Mar 23	Experiment 4 (Lehman, p. 77): Synthesis of triphenylmethanol (Week 1) Quiz 6 Due: E4 Pre-lab Write-up
Mar 30	Experiment 4 (Lehman, p. 77): Synthesis of triphenylmethanol (Week 2) Quiz 7 Due: E3 Lab Report
Apr 6	Experiment 5 (Handout on Canvas): Friedel-Crafts Acylation of Anisole Quiz 8 Due: E4 Lab Report
Apr 13	No experiment—Make-up lab
Apr 20	Cumulative Lab Exam Due: E5 Lab Report
Apr 27	NO LAB THIS WEEK—FINALS WEEK

Your instructor retains the right to substitute or switch labs as required by unforeseen circumstances

Lab procedures are provided in the Lehman lab manual on Canvas