

# ORGANIC CHEMISTRY 1 LABORATORY

## CHEM 3143 Syllabus

### INSTRUCTOR CONTACT

**Shaun D. Black, Ph.D.**

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**Office Hours**

Tu 11:00 AM—1:00 PM

W 10:00 AM—1:00 PM

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

### PREREQUISITES AND COREQUISITES

General Chemistry I (CHEM 1311) & General Chemistry I Lab (CHEM 1111)

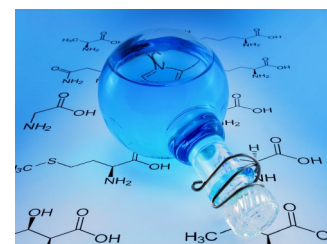
General Chemistry II (CHEM 1312) & General Chemistry II Lab (CHEM 1112)

Organic Chemistry I (CHEM 3342): *Currently Enrolled or Previously Completed*

We cannot stress enough how vital your general chemistry preparation will be to your study of organic chemistry. If it has been some time since you have had general chemistry, or you feel that the course you had was less than adequate, it is important that you take some time to review. This course will proceed as if you have a thorough understanding of general chemistry.

### Course Description

Basic experiments in organic chemistry.



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## STUDENT LEARNING OUTCOMES

1. Better understand the principles and topics of organic chemistry which have been discussed in the lecture (CHEM 3342).
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 laboratory.
3. Perform basic synthetic organic techniques as well as learn to use common equipment and apply methodologies found and used in the routine organic chemistry laboratory.
4. Perform the laboratory skills needed to determine the chemical and physical properties of organic compounds.
5. Comprehend and follow laboratory instructions.
6. Interpret laboratory results and data correctly and report findings in a scientific notebook using acceptable and appropriate notational and descriptive content that is understandable and reproducible.
7. 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).
8. Use infrared spectroscopic techniques as an aid in determining functional groups and molecular structure. Also, predict infrared spectral properties of a given organic chemical 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.

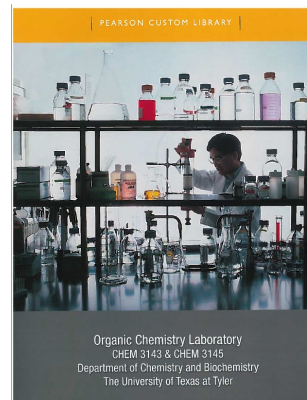
### Census Date and Last Day to Withdraw

Deadline for all registrations, schedule changes, and section changes is **Monday, January 24, 2022**.

The last day to withdraw from one of more courses is **Monday, March 28, 2022**.

## 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

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](http://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](mailto:itsupport@patriots.uttyler.edu) or stop by the Campus Computing Center in RBN 2025.

## 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 as 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.

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# COURSE GRADE

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<b>Experimental:</b>	<b>60%</b>
<b>Quizzes:</b>	<b>10%</b>
<b>Exams:</b>	<b>25%</b>
<b>Overall Proficiency:</b>	<b>5%</b>

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

### **Lab Reports (5)**

1. Laboratory Notebook (Organization and Quality of 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 Exams (35% of Total Grade)**

There will be a series of nine (9) 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 two in-class exams. These exams are vitally important in accessing your understanding of key concepts learned in the course and you should take them 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 will occur based on your individual performance; this is not an exhaustive list. The first "strike" in each category will be considered a mulligan. Every student will start with a 100 for this portion of the grade.

Breaking glassware (-3)

Coming to lab late (-5)

Not wearing proper attire (-5)

Forgetting goggles (-5)

Not relying solely on lab notebook (-3)

Relying only on partner to complete entire experiment (-7)

## 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, exams or writing laboratory reports, 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.**

[\*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*, available in the Office of Student Affairs.

## 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](http://www.uttyler.edu/tobacco-free).

## Campus Carry Policy

1. “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.utt Tyler.edu/about/campus-carry/index.php>.”

## University Policies

To see a list of the general University policies please follow this link: [www.utt Tyler.edu/academicaffairs/syllabuspolicies.pdf](http://www.utt Tyler.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.utt Tyler.edu/wellness/rightsresponsibilities.php](http://www2.utt Tyler.edu/wellness/rightsresponsibilities.php)

## Laboratory Schedule

See separate handout.

