UCONN
UNIVERSITY OF CONNECTICUT

Organic Chemistry: CHEM 2242
Department of Chemistry

Syllabus – Fall 2022

Excluding materials for purchase, syllabus information may be subject to change. The most up-to-date syllabus is located within the course in HuskyCT.

Program Information

Enrollment Requirements: CHEM 2241, which may be taken concurrently. Not open for credit to students who have passed CHEM 2443.

Course and Instructor Information

Course Title: Organic Chemistry Laboratory
Credits: # 1
Format: In person
Professor: Anwar Beshir
Office: CHEM A-210
Email: anwar.beshir@uconn.edu (preferred method of contact)
Telephone: 860-486-6610 (office)

Office Hours/Availability: **Thursday 10:30 AM – 11:30 PM** for Th sections, and **Friday 8:00 AM – 9:00 AM** for Friday sections or by appointment.
Please go to (https://nexus.uconn.edu) → student sign-in → net id and password → schedule appointment → search by department → Chemistry → Choose person → Beshir, Anwar

Lecture/ Discussion: **Thursday sections: 12:00-12:50 PM** in **CHEM T-309** and **Friday sections: 9:05 – 9:55 AM** in **MONT 319**

✓ I will discuss concepts and go over procedures for each experiment.

Course Materials

Required course materials should be obtained before the first day of class.

Required course materials are available for purchase through the UConn Bookstore.

Required Materials:

Item 1. ORGANIC CHEM:SHORT CRSE-LAB.MAN: ***ISBN: 9781111425845***

Additional course readings and media are available within HuskyCT, through an Internet link

Course Description

Techniques, calculations, reactions, characterization, and spectroscopy.

Course Objectives

By the end of the semester, students should be able to:

- ✓ Describe techniques, safely setup and run reactions, and purify and characterize products.
- ✓ Collect data and explain the roles of reagents and reaction conditions.
- ✓ Analyze/interpret spectroscopic data
- ✓ Identify limiting reagent and calculate theoretical and percent yields.
- ✓ Draw chemical equations and show mechanisms for reactions.

Upon completing the course, students will have the ability to synthesize, extract, purify and characterize organic compounds even ones that have not explicitly been discussed.

Schedule of lectures, labs, and exams

Monday	Tuesday	Wednesday	Thursday	Friday
August 29	August 30	Sep 31	**Sep 01** Lecture: Intro., M.P **Lab: Check-in**	**Sep 02** Lecture: Intro., M.P **Lab: Check-in**
Sep 05 **Labor Day**	**Sep 06**	**September 07**	**September 08** Lecture: Recrystallization **Lab #1: Melting Points, p. 3 and 4**	**September 09** Lecture: Recrystallization **Lab #1: Melting Points, p. 3 and 4**
Sep 12	September 13	September 14	**September 15** Lecture: Distillation **Lab #2: Recrystallization, p. 14**	**September 16** Lecture: Distillation **Lab #2: Recrystallization, p. 14**
Sep 19	September 20	September 21	**September 22** Lecture: Extraction **Lab #3: Distillation, p. 26-28**	**September 23** Lecture: Extraction **Lab #3: Distillation, p. 26-28**
Sep 26	September 27	September 28	**September 29** Lecture: Substit./Elim. **Lab #4: Extraction, p. 37**	**September 30** Lecture: Substit./Elim. **Lab #4: Extraction, p. 37**
October 03	October 04	October 05	**October 06** Lecture: Review Exam 1 **Lab #13: t-Butyl Chloride, p. 201**	**October 07** Lecture: Review Exam 1 **Lab #13: t-Butyl Chloride, p. 201**
October 10	October 11	October 12	**October 13** **Exam 1** **Lab #8: Cyclohexene, p. 108**	**October 14** **Exam 1** **Lab #8: Cyclohexene, p. 108**

Monday	Tuesday	Wednesday	Thursday	Friday
October 17	October 18	October 19	**October 20** Lecture: IR Spec. **Lab: IR problem set**	**October 21** Lecture: IR Spec. **Lab: IR problem set**
October 24	October 25	October 26	**October 27** Lecture: Nitration **Lab: Nitration of Methyl Benzoate, P.153, macroscale**	**October 28** Lecture: Nitration **Lab: Nitration of Methyl Benzoate, P.153, macroscale**
October 31	November 01	November 02	**November 03** Lecture: Aspirin synthesis **Lab: Aspirin synthesis, p. 320**	**November 04** Lecture: Aspirin synthesis **Lab: Aspirin synthesis, p. 320**
November 07	November 08	November 09	**November 10** Lecture: Aldol **Lab: Aldol Condensation, P. 241**	**November 11** Lecture: Aldol **Lab: Aldol Condensation, P. 241**
November 14	November 15	November 16	**November 17** Lecture: Review Exam 2 **Make up: TBA**	**November 18** Lecture: Review Exam 2 **Make up: TBA**
November 21 **Thanksgiving** **No Classes**	**November 22** **Thanksgiving** **No Classes**	**November 23** **Thanksgiving** **No Classes**	**November 24** **Thanksgiving** **No Classes**	**November 25** **Thanksgiving** **No Classes**
November 28	**November 29**	**Novemebr 30**	**December 01** **Exam 2** **Lab: Check-out**	**December 02** **Exam 2** **Lab: Check-out**

Course Requirements and Grading

Summary of Course Grading:

Course Components	Points
Lab report	400
Pre-lab quizzes	100
Exam - 1	100
Exam - 2	150
TOTAL	**750**

Lab report

There will be a total of 10 experiments worth 40 points each, and you are expected to write lab report for each.

Rubric for lab grades is as follows:

Participation = **15 pts.** If you come to lab well prepared and complete the experiment safely and on time.
Lab report (Unknown, theoretical yield, percent yield etc.…) = **25 pts.**

- ✓ **Lab report is due before the end of lab session.**

IR problem set

IR problem set will be assigned on October 21st/23nd. **It is due the same day before the end of lab time.**

Weekly Quizzes

Ten quizzes will be given in huskyCT during the first 10 min of each lecture/discussion. Each quiz is worth 10 points.

- ✓ There will be **one cumulative make-up quiz at the end of the semester** for all students who missed any of the ten quizzes for acceptable reason.

Exams

Two exams will be given in huskyCT. **Exam 1** will cover **experiments 1 – 5** and **exam 2** is **cumulative**.

Extra credit:

You will be given unannounced extra credits (worth 2% of total grade) in discussion. You will not get credit if you miss more than one of the extra credits offered. You get maximum 1% if you miss one. **No make-up** for missed extra credit.

Grading Scale:

Grade	Letter Grade
93.0-100.0%	A
90.0-92.99%	A-
87.0-89.99%	B+
83.0-86.99%	B
80.0-82.99%	B-
74.0-79.99%	C+
66.0-73.99%	C
60.0-65.99%	C-
57.0-59.99%	D+
53.0-56.99%	D
50.0-52.99%	D-
0.00-49.99%	F

Due Dates and Late Policy

All course due dates are identified in the course website, syllabus, top hat and/or on specific work assigned. Deadlines are based on Eastern Time; if you are in a different time zone, please adjust your submittal times accordingly. *The instructor reserves the right to change dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner.*
You will be given enough time to complete lab reports, quizzes, problem set and exams. Late submissions are **NOT** accepted.

Feedback and Grades

I will make every effort to provide feedback and grades in 48-72 hours. To keep track of your performance in the course, refer to My Grades in HuskyCT.

Weekly Time Commitment

You should expect to dedicate minimum of 4-6 hours of work out of class a week to this course. This expectation is based on the various course activities, assignments, and the University of Connecticut's policy regarding credit hours. More information related to hours per week per credit can be accessed at the Online Student website.

Assessment

Most assessments will be done online on huskyCT. You need to bring a working computer to every lecture to do quizzes, exams, and extra credit.

Student Responsibilities and Resources

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. Review these important standards, policies and resources, which include:

- The Student Code
    - Academic Integrity
    - Resources on Avoiding Cheating and Plagiarism
- Copyrighted Materials
- Credit Hours and Workload
- Netiquette and Communication
- Adding or Dropping a Course
- Academic Calendar
- Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships
- Sexual Assault Reporting Policy

➢ Attendance at lectures is expected. You are responsible for **announcements** and **all material presented in lecture** including **lecture slides.**

➢ My discussion, discussion notes, study guides and assessments are protected by state and federal copyright laws. Students are authorized to use the resources for their own personal use. I will record most discussions; you are not authorized to record my lectures and my discussions during office hours. Posting of any of my materials including, lecture video, lecture notes, handouts, exams, quizzes and assignments to any website and social media site violates this policy.

Students with Disabilities

The University of Connecticut is committed to protecting the rights of individuals with disabilities and assuring that the learning environment is accessible. If you anticipate or experience physical or academic barriers based on

disability or pregnancy, please let me know immediately so that we can discuss options. Students who require accommodations should contact the Center for Students with Disabilities, Wilbur Cross Building Room 204, (860) 486-2020 or http://csd.uconn.edu/.

Blackboard measures and evaluates accessibility using two sets of standards: the WCAG 2.0 standards issued by the World Wide Web Consortium (W3C) and Section 508 of the Rehabilitation Act issued in the United States federal government." (Retrieved March 24, 2013 from Blackboard's website).

Software/Technical Requirements (with Accessibility and Privacy Information)

The software/technical requirements for this course include:

- HuskyCT/Blackboard (HuskyCT/ Blackboard Accessibility Statement, HuskyCT/ Blackboard Privacy Policy)
- Adobe Acrobat Reader (Adobe Reader Accessibility Statement, Adobe Reader Privacy Policy)
- Google Apps (Google Apps Accessibility, Google for Education Privacy Policy)
- Microsoft Office (free to UConn students through uconn.onthehub.com) (Microsoft Accessibility Statement, Microsoft Privacy Statement)
- Dedicated access to high-speed internet with a minimum speed of 1.5 Mbps (4 Mbps or higher is recommended).
- Webcam
- Lockdown browser

For information on managing your privacy at the University of Connecticut, visit the University's Privacy page.

NOTE: This course has NOT been designed for use with mobile devices.

Help

Technical and Academic Help provides a guide to technical and academic assistance.

This course is completely facilitated online using the learning management platform, HuskyCT. If you have difficulty accessing HuskyCT, you have access to the in person/live person support options available during regular business hours through the Help Center. You also have 24x7 Course Support including access to live chat, phone, and support documents.

Minimum Technical Skills

To be successful in this course, you will need the following technical skills:

- Use electronic mail with attachments.
- Save files in commonly used word processing program formats.
- Copy and paste text, graphics or hyperlinks.
- Work within two or more browser windows simultaneously.
- Open and access PDF files.

University students are expected to demonstrate competency in Computer Technology. Explore the Computer Technology Competencies page for more information.

Evaluation of the Course

Students will be provided an opportunity to evaluate instruction in this course using the University's standard procedures, which are administered by the Office of Institutional Research and Effectiveness (OIRE).

Safety: For your safety during lectures, office hours and review sessions, you are expected to follow university COVID-19 guidelines. https://covid.uconn.edu/campus-guidelines#.