UCONN
UNIVERSITY OF CONNECTICUT

CHEM 2443
Organic Chemistry

Syllabus – Fall 2021

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

Course and Instructor Information

Course Title: Organic Chemistry (CHEM 2443)
Credits: 3
Lecture: M,W,F 9:15am-10:05am

Prerequisites: CHEM 1128Q, 1138Q, 1148Q, or 1126Q (1126Q may be taken concurrently). Only two credits after passing CHEM 2241. May not be taken out of sequence after passing CHEM 2444, 2446, or 4370. Repeat restrictions apply; see advising.uconn.edu/repeat-policy for more information.

Professor/Instructor/Facilitator: Connor Boyle
Pronouns: (he/him/his)
Email: connor.boyle@uconn.edu
Office: Room 305
Office Hours/Availability: Regularly on Wednesdays from 1:30 – 3:30 in Room 305. Additionally, you may and are strongly encouraged to e-mail me to make office hours by appointment at other days and times as needed, after considering that I am unavailable from 11am until 2:30pm on M and from 11am until 12:45pm on W and F. Office hours by appointment may occur in Room 305 on M,W,F or virtually on T,Th.

Course Materials

We will spend a portion of our first day of class registering for Connect to access these materials.

Electronic Homework, Practice, and Reading (Required): Connect. We will spend a portion of our first day of class registering for Connect and our own section for Organic Chemistry to access these materials.

Textbook: *Organic Chemistry 11e*, Carey and Giuliano. Can be accessed online with your Connect account any time for 24 months. If you wish to rent or purchase a hardcopy (paperback, hard cover, loose leaf), you may explore your options through Connect or independently.

(Strongly Recommended): Molecular Visions Organic Model kit, (ISBN: 9780964883710)

Course Objectives

1. Name organic compounds with a given structure or illustrate the structure of organic compounds with a given name according to the IUPAC rules.
    a. Alkanes
    b. Alcohols
    c. Alkyl halides
    d. Alkenes
    e. Alkynes

2. Illustrate the stereochemistry and chirality of organic molecules with drawings.

3. Predict the products of organic reactions, including predictions about the stereochemistry and chirality.
    a. Nucleophilic substation
    b. Elimination
    c. Addition

4. Predict the relative stabiliity of organic cations, free radicals, and anions based on their molecular structure-property relations and the effect of the solvent.

Course Requirements and Grading

Summary of Course Grading:

Course Components	Points	Weight
Homework	100	10%
Classwork	100	10%
Quizzes	200	20%
Exams (3 total)	300 (100 pts. each for 3 Exams)	30%
Final Exam	200	20%
Total	1,000	100%

Homework
Homework assignments will be assigned using Connect. Note that only assignments categorized as "Homework" in connect will count. Questions are graded based on accuracy. Assignments categorized as "Practice" in Connect will help you study and see more examples of the same material, but are not averaged into your grade.

Classwork
Participate in flipped-classroom problems by reviewing the material before class.

Quizzes
Weekly quizzes will be assigned in class, usually on Mondays or at the beginning of the week. Any missed quiz will automatically count as a 0 for that quiz. Quizzes, whether they were missed or taken, can not be made up. Your lowest quiz grade of the semester will be dropped.

Exams
Exams may be given in the Lab section (on a Monday) using a combination of paper and computer components using a designated computer with a lockdown browser or in Lecture section.

Final Exam
A cumulative Final Exam will be assigned at the end of the semester following a Final Exam review during the last week of classes.

For additional information on undergraduate grading policies see here: https://registrar.uconn.edu/grades/

For additional information on graduate grading policies see here (note that effective Fall 2020, the grade of A+ no longer exists) https://gradcatalog.uconn.edu/grad-school-info/academic-regulations/#Grades

Due Dates and Late Policy

Due dates can be found on individual assignments on Connect and correspond to Eastern Standard time.

Tentative Course Outline and Calendar

This schedule is subject to modification. Date changes of assessments will be announced during lecture. Chapters and subjects correspond to material reviewed in Lecture, reading from OpenStax, and homework on Knewton Alta.

Summary of Exams:

Week and Date	Exam	Chapters	New Ideas
Week 5 9/27 (Monday)	Exam 1	1 – 4	Naming, drawing line structures, determining and illustrating stereochemistry and chirality
Week 9 10/25 (Monday)	Exam 2	1 – 7	Reaction mechanisms that involve a leaving group, factors that help us predict SN1/SN2/E1/E2 competition
Week 12 11/15 (Monday)	Exam 3	6, 7, 8, and 9	Reaction mechanisms that involve addition, factors that help us predict the relative stability of free radicals

Complete, Tentative Outline of Lecture/Assessments:

Week	**Lecture**	**Assessment**
Week 1 8/30 – 9/3	Chapter 1 – Structure Determines Properties (includes some General Chemistry review and new material related specifically to Organic Chemistry)	-
Week 2 9/8 – 9/10	Chapter 2 – Alkanes and Cycloalkanes: Introduction to Hydrocarbons	Quiz 1 (Ch. 1)
Week 3 9/13 – 9/17	Chapter 2 – Alkanes and Cycloalkanes: Introduction to Hydrocarbons *(cont.)* Chapter 3 – Conformations and cis-trans Stereoisomers	Quiz 2 (Ch. 2)
Week 4 9/20 – 9/24	Chapter 3 – Conformations and cis-trans Stereoisomers *(cont.)* Chapter 4 – Chirality	Quiz 3 (Ch. 2 – IUPAC Nomenclature)
Week 5 ***9/27 – 10/1***	**Chapter 5 – Alcohols and Alkyl Halides: Introduction to Reaction Mechanisms**	**Exam 1 (Ch. 1 – 4)** **Monday, 9/27**
Week 6 10/4 – 10/8	Chapter 6 – Nucleophilic Substitution	Quiz 4 (Ch. 5)
Week 7 10/11 – 10/15	Chapter 6 – Nucleophilic Substitution *(cont.)* Chapter 7 – Structure and Preparation of Alkenes: Elimination Reactions	Quiz 5 (Ch. 6)
Week 8 10/18 – 10/22	Chapter 7 – Structure and Preparation of Alkenes: Elimination Reactions *(cont.)*	Quiz 6 (Ch. 6,7 – SN1, SN2, E1, E2 competition)
Week 9 ***10/25 – 10/29***	***Chapter 8 – Addition Reactions of Alkenes***	***Exam 2 (Ch. 1 – 7)***
Week 10 11/1 – 11/5	Chapter 9 – Alkynes	Quiz 8 (Ch. 8)
Week 11 11/8 – 11/12	Chapter 10 – Introduction to Free Radicals	Quiz 9 (Ch. 9)
Week 12 ***11/15 – 11/19***	***Chapter 11 – Conjugation in Alkadienes and Allylic Systems***	***Exam 3 (Ch. 1 – 10)***
Week 13 11/22 – 11/26 Thanksgiving Recess	-	-
Week 14 11/29 – 12/3	Chapter 11 – Conjugation in Alkadienes and Allylic Systems (cont.)	Quiz 11 (Ch. 11)
Week 15 12/6 – 12/10	Chapter 12 – Arenes and Aromaticity	-

State common law and federal copyright law protect my lectures, notes, handouts, assessments, and displays. Students are authorized to take notes in my class; however, this authorization extends only to making one set of notes for your own personal use and no other use. You must obtain permission from me if you wish to audio record or video record my lecture. If you are so authorized to record my lectures, you may not copy this recording or any other material, provide copies of either to anyone else, or make a commercial use of them without prior permission from me. Posting of any of my assessments, including but not limited to exams, quizzes, and solutions to recommended problems to any website or social media site violates this policy.

Privacy Statement: 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.

Certain classroom examples may be recorded and shared with our class using Kaltura. I will announce this in class before I begin recording. Only videos relevant to learning Organic Chemistry will be recorded and they will only be shared with students of Organic Chemistry.

Class Expectations

Organic Chemistry is intense and fast-paced. In general, for each hour of class, you should expect to spend two hours of work outside of class doing the homework and learning the material.

Most of the concepts you see for the first time in class will be used continuously throughout the semester to explain the more advanced material in upcoming classes. If you do not understand a lecture, homework assignment, quiz, or exam, it will be imperative that you review the material in your textbook and ask me, a tutor, or a classmate about it immediately. If you miss concepts early on without addressing them, this will pave the way for even more knowledge gaps later. Making mistakes and learning from them, however, can be an opportunity to understand and explain the material as well or surprisingly even better than if you hadn't made the mistake at all.

Please do not hesitate to ask questions or attend office hours. All questions are important here. Success in this course program depends heavily on your personal health and well-being. Recognize that stress is an expected part of the college experience, and it often can be compounded by unexpected setbacks or life changes outside the classroom. Reflect on your role in taking care of yourself throughout the semester, before the demands of exams and labs reach their peak. Please feel free to reach out to me about any difficulty you may be having that may impact your performance in your courses or campus life as soon as it occurs and before it becomes too overwhelming. In addition to your academic advisor, I strongly encourage you to contact the many other support services on campus that stand ready to assist you.

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

Resources for Students Experiencing Distress

The University of Connecticut is committed to supporting students in their mental health, their psychological and social well-being, and their connection to their academic experience and overall wellness. The university believes that academic, personal, and professional development can flourish only when each member of our community is assured equitable access to mental health services. The university aims to make access to mental health attainable while fostering a community reflecting equity and diversity and understands that good mental health may lead to personal and professional growth, greater self-awareness, increased social engagement, enhanced academic success, and campus and community involvement.

Students who feel they may benefit from speaking with a mental health professional can find support and resources through the **Student Health and Wellness-Mental Health** (SHaW-MH) office. Through SHaW-MH, students can make an appointment with a mental health professional and engage in confidential conversations or seek recommendations or referrals for any mental health or psychological concern.

Mental health services are included as part of the university's student health insurance plan and also partially funded through university fees. If you do not have UConn's student health insurance plan, most major insurance plans are also accepted. Students can visit the **Student Health and Wellness-Mental Health located in Storrs on the main campus in the Arjona Building, 4th Floor,** or contact the office at **(860) 486-4705, or https://studenthealth.uconn.edu/** for services or questions**.**

Accommodations for Illness or Extended Absences

Please stay home if you are feeling ill and please go home if you are in class and start to feel ill. If illness prevents you from attending class, it is your responsibility to notify me as soon as possible. You do not need to disclose the nature of your illness, however, you will need to work with me to determine how you will complete coursework during your absence.

If life circumstances are affecting your ability to focus on courses and your UConn experience, students can email the Dean of Students at dos@uconn.edu to request support. Regional campus students should email the Student Services staff at their home campus to request support and faculty notification.

COVID-19 Specific Information: People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness. These symptoms may appear 2-14 days after exposure to the virus and can include:

- Fever,
- Cough,
- Shortness of breath or difficulty breathing
- Chills
- Repeated shaking with chills
- Muscle pain
- Headache
- Sore throat
- New loss of taste or smell

Additional information including what to do if you test positive or you are informed through contract tracing that you were in contact with someone who tested positive, and answers to other important questions can be found here: https://studenthealth.uconn.edu/updates-events/coronavirus/

Mask and Social Distancing Expectations

To ensure a safe learning environment for everyone, masks/face coverings must be worn at all times when inside buildings, including in the classroom, regardless of vaccination status. If a student is not wearing a mask/face covering, they will be asked by the instructor to put one on immediately or leave the classroom. Repeatedly failing to follow this expectation will result in a referral to Community Standards. Activities that involve temporarily removing the mask, such as eating or drinking are not allowed. Please leave the classroom for such activities. If an instructor is not wearing a mask/face covering, students should feel comfortable asking the instructor to put one on immediately. More information about proper usage of masks is available from UConn Environmental Health and Safety at this link.

Although social distancing will not be required inside classrooms for vaccinated individuals, please be respectful of the wishes of others who prefer to maintain social distancing. For their own protection, unvaccinated individuals are requested to maintain 6 feet social distancing from others.

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. 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)

Help

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

This course uses 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.

Student Technology Training

Student technology training is now available in a new HuskyCT short course created by students for students. It will prepare you to use the IT systems and services that you will use throughout your time at UConn, whether learning online or on-campus. It is available at https://lms.uconn.edu/ultra/courses/_80016_1/cl/outline .