

Please see <https://uh.simplesyllabus.com/> for section/semester specific details



CHEM 2323 | Organic Chemistry I

Section: | Face-to-Face

TuTh 10:00 AM or 1:00 PM | University of Houston; Lamar Fleming, Jr.; F 160

Prerequisite(s): CHEM 1312. May not apply toward degree until CHEM 2123 is successfully completed. Chemistry of the compounds of carbon with emphasis on energies and mechanism of reactions, synthesis, and the structure of organic molecules.

General Course Information

Crystal Young

Department: Chemistry

Email: cayoung@uh.edu (Try Teams first!)

Office Hours

In Person (Office TBD) Mon./Wed.: 1-3:00 PM, T/Th 2:30-3:30 PM, Virtual (on Teams) [click here to schedule](#)

Required Instructional Materials

This textbook is available **free** through Openstax [here](#):

Solutions Manual for McMurry - Available [here](#). This will download as a Zipped folder where every chapter is a separate PDF file.

Strongly Suggested: Molecular model kits (will be able to use during exams)

This course will use the material(s) listed below:

Organic Chemistry

ISBN: 9781711471853

Authors: John McMurry

Publication Date: 2023-01-01

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Course Schedule, Assignments, and Assessments

We will adhere to this outline as best as possible. You are responsible for all the material covered in your reading even if it is not explicitly discussed during lecture. Attending lectures and reading the textbook are complementary modes of learning, not substitutes for one another.

Review Sessions: TBA. Students will work in small groups and the TA will go around answering questions. Attendance is not mandatory but highly encouraged!

Persons requiring assistance under ADA guidelines please contact me immediately.

Last day to drop without hours counting towards enrollment cap:

Last day to drop a course without receiving a grade:

Last day to drop a course or withdraw:

Lecture Date	Chapter	End of Chapter Problems
2 dates	1: Structure and Bonding	1.18-21; 24a, c, d; 25-27; 28b, c; 29-39; 41-56
2 dates	2: Bonds; Acids, Bases	2.20-30; 35-38; 40-41; 43-48; 52; 55-57; 60-61; 63-65
2 dates	3: Alkanes	3.19-20; 22-25; 26b, c; 27-39; 42; 44; 48-49; 53
2 dates	4: Cycloalkanes	4.22; 25; 27-33; 37-39; 41; 44-46; 54-55
1 date	EXAM 1 (Ch. 1-4)	
2 dates	5: Stereochemistry	5.30; 32-37; 39-55; 62-67; 71-74
2 dates	6: Organic Reactions	6.17; 19-23; 26-39; 41; 43-44; 46-47
2 dates	10: Organohalides	10.18-20, 22-26; 28-36b,c; 38; 40b,c; 45
3 dates	11: Substitutions, Eliminations	11.25-28; 36; 39-45; 47-48; 50-52; 55-62; 65, 69-70; 75
1 date	EXAM 2 (Ch. 5-6,10,11)	
2 dates	7: Alkene Structure, Reactivity	7.26-31; 33-48; 53-61; 64; 66-67, 11.68
2 dates	8: Alkene Reactions, Synthesis	8.26-32; 36; 38-52; 56-62; 64-65; 67; 69-70; 10.21, 36a, 39, 40a; 11.31, 71
2 dates	9: Alkynes, Synthesis	9.18-19; 21-23; 24a, c; 25-48; 56-57

Lecture Date	Chapter	End of Chapter Problems
3 dates	17: Alcohols, Phenols	17.25-36; 37a-e; 38; 39a, b, d; 40-46; 47a, b, c, g, h; 48a, d; 49-50; 57; 61-63; 65; 67-68; 70; 72
1 date	EXAM 3 (Ch. 7-9, 17)	
1 date	12: MS, IR	12.27; 30-37; 43; 45-46
1 date	Thanksgiving Holiday, No Class	
2 dates	13: NMR	13.34-39; 42-47; 49; 50-55; 57-59
1 date	Final Exam 8:00-10:00 AM (Ch. 1-13, 17)	

Grading Rubrics and Weights

	Total Weight of Final Grade (%)
Exams (best 2 of 3 exams)	60
Final Exam	40
TOTAL	100

Quizzes: (up to 3% extra credit): Unannounced in-class quizzes will be given throughout the semester. Quizzes will be graded for completeness, not correctness. Excused absences must be accompanied by appropriate documents. You must submit at least half of all quizzes to receive extra credit points. If this condition is met, your final extra credit amount will be determined based on the percentage of quizzes you submitted multiplied by the maximum 3%.

Exams: Your two best exam grades will be used to determine your overall grade in the course. All exams must be taken at the scheduled time. No make-up exams will be given.

EXAM SCHEDULE:

Friday, September , 5:30-7:00 PM

Friday, October , 5:30-7:00 PM

Friday, November , 5:30-7:00 PM

Final Exam: The final exam will be the cumulative. It will take place on December from 8:00-10:00AM.

Grading: The final grading scale will depend on the overall class performance but this a typical breakdown: A = 100–87%; B = 86–75%; C = 74–63%; D = 62–50%; F = <50%. Plus (+) and minus (-) signs will be assigned to grades within 2% of grade cutoffs.

Course Policies and Procedures

1. All drops are the responsibility of the student.
2. ALL GRADED WORK SHOULD BE DONE INDIVIDUALLY. The UH Academic Honesty Policy is in effect. All graded exams are copied.
3. All quizzes and exams are closed book. Model kits are the only external things allowed. Books, notes, cell phones, calculators etc. MUST be left in your closed bag or not brought to class at all.
4. Students who need accommodations are responsible for communicating these to me.
5. YOU CAN NOT TAKE CHEM 1311, CHEM 1312, OR CHEM 2325 CONCURRENTLY WITH THIS COURSE. NO EXCEPTIONS!
6. Grades are assigned based on performance and not need (“I will lose a scholarship, I will not enter med school if you give me this grade, I will not graduate on time” etc will not work). The ONLY way of getting out of a failed grade after the drop date is medical withdrawal FROM ALL CLASSES IN GIVEN SEMESTER. There will be no extra credit – do not even ask!
7. Regrades. If there is an addition error on exam, I will correct it without regrading anything. If you want a question regraded, I will regrade the whole test and you may get points added or subtracted to your total score. Make sure that adding 1 point in Question 1 is not accompanied by subtraction of 10 points in Question 2. Submit regrade no later than 10 days after exam. How to request a regrade: Send me a message in Teams with an explanation where you think is a grading error and directly say that you want a regrade. I will not accept pictures; everything must be in text. Any change in the exam you show me which has been introduced after it was graded constitutes cheating and you will get 0 for this test without possibility of dropping the test score and the class.
8. Syllabus is subject to modification without notice if circumstances change.

9. If you have a documented and university approved excuse for missing any exam you are responsible for communicating this to me by email for a minimum of 10 days before the exam. If this is not communicated timely, you will have to use this as a drop exam.

10. Uploading or viewing ANY course materials, including lectures, problem sets, Exam 1, 2, 3, or Final to Chegg or other unauthorized websites at any time during this semester constitutes violation of University honesty and copyright policies. You or someone who has access to your Chegg account (or a similar service account) uploading or viewing any exam materials for this semester on any unauthorized website will result in a failed grade or worse. If it goes to arbitration, Chegg readily provides University with information, if requested.

11. You can miss one Midterm without any consequences. However, if you miss more than one Midterm for any reason, you will be dropped from the class. University Excused Absence Policy: Excused absences under this policy may be granted for a maximum percentage of coursework as determined by the instructor in each class, typically 15%. Coursework limit may include exams, quizzes, and homework. <https://uh.edu/provost/students/student-policies/excused-absence-policy/index>

How to Succeed in Organic Chemistry

1. Come to class. If you miss class, copy BY HAND notes from someone in the class. Taking pictures of the notes will not help as it is you, and not your phone, who needs this information in memory.

2. (a) Watching organic chemistry videos on youtube does not substitute for coming to class, studying, and doing homework problems! It may be helpful, but watching videos without doing problems is insufficient. (b) Doing random problems found in internet tubes is not helpful as these are often full of errors. Need more problems – ask me or use www.chem3331.com.

3. Read textbook BEFORE coming to class. You will be able to specifically ask questions about material you have trouble understanding. Furthermore, seeing material for the second time will help you understand it much better.

4. Try to do all homework – doing only the assigned problems is minimum required. Do not look at homework answers before you have solved the problem – you will not be provided answers to peek into during tests!

5. Ask questions before, during and after the lectures. At other times, email me questions and I will usually answer those within few hours. HOWEVER – be specific in asking questions by email as I will not retype textbook in my answer. Example of a good question: does methyl iodide react by SN1 or SN2 and why. Example of a bad question: Please tell me about SN1 reaction as I was busy texting during lecture.

6. Attend review sessions TBD. You do NOT need to sign up and pay for them, they are voluntary.

7. If you can, sign up for Recitation (Chem 2131). Check for the teaching style of TA who runs your section – talk to previous year students if they liked that TA

8. Thinking about the grade and studying hard has to start at the beginning of semester. Very few students are able to succeed if they slack off at the beginning.

Learning chemistry takes time and focused effort. For the summer session, on average, a student should expect to devote 12-18 hours per week in preparation (beyond lecture time) to work towards mastery of the course topics. In addition, many students gain added efficiency and effectiveness by using available academic resources to support their learning. Several such resources are listed below for your consideration (Not all services are available during the Summer):

Tutoring

Free tutoring is available from the following:

- ACS tutors (UH American Chemical Society Chapter volunteers): <http://acsuh.com/tutoring/>
- LAUNCH tutors: <https://ussc.uh.edu/lss/tutoring.aspx>
- NSM-SEP tutoring: <https://uh.edu/nsm/scholar-enrichment/tutoring/>
- Knack online tutoring: <https://app.joinknack.com/school/university-of-houston>

Facilitated group problem-solving sessions

- CHEM GYM: free weekly, tutor-led sessions
- Success Guides: <https://uh.edu/ussc/launch/services/handouts/>
- Success Workshops: <https://uh.edu/ussc/launch/workshops/>
- Success Coaching: <https://uh.edu/ussc/launch/coaching/>

University Policies and Student Support Resources

Mental Health and Wellness Resources

The University of Houston has a number of resources to support students' mental health and overall wellness, including [CoogsCARE](#) and the [UH Go App](#). [UH Counseling and Psychological Services \(CAPS\)](#) offers 24/7 mental health support for all students, addressing various concerns like stress, college adjustment and sadness. CAPS provides individual and couples counseling, group therapy, workshops and connections to other support services on and off- campus. For assistance visit uh.edu/caps, call 713-743-5454, or visit a [Let's Talk](#) location in-person or virtually. Let's Talk are daily, informal confidential consultations with CAPS therapists where no appointment or paperwork is needed.

Need Support Now? If you or someone you know is struggling or in crisis, help is available. Call CAPS crisis support 24/7 at 713-743-5454, or the National Suicide and Crisis Lifeline: call or text 988, or chat 988lifeline.org.

Title IX/Sexual Misconduct

Per the UHS Sexual Misconduct Policy, your instructor is a "responsible employee" for reporting purposes under Title IX regulations and state law and must report incidents of sexual misconduct (sexual harassment, non-consensual sexual contact, sexual assault, sexual exploitation, sexual intimidation, intimate partner violence, or stalking) about which they become aware to the Title IX office (known at UH as the Equal Opportunity Services office or "EOS"). Please know there are places on campus where you can make a report in confidence. You can find more information about resources on the UH [Title IX/Sexual Misconduct Resources page](#). Please note that you may also report concerns of discrimination based on your protected class identity to EOS.

Reasonable Academic Adjustments/Auxiliary Aids

The University of Houston is committed to providing an academic environment and educational programs that are accessible for its students. Any student with a disability who is experiencing barriers to learning, assessment or participation is encouraged to contact the Justin Dart, Jr. Student Accessibility Center (Dart Center) to learn more about academic accommodations and support that may be available to them. Students seeking academic accommodations will need to register with the Dart Center as soon as possible to ensure timely implementation of approved accommodations. Please contact the Dart Center by visiting the website:

<https://uh.edu/accessibility/> calling (713) 743-5400, or emailing jdcenter@Central.UH.EDU.

The [Student Health Center](#) offers a Psychiatry Clinic for enrolled UH students. Call 713-743-5149 during clinic hours, Monday through Friday 8 a.m. - 4:30 p.m. to schedule an appointment.

The [A.D. Bruce Religion Center](#) offers spiritual support and a variety of programs centered on well-being.

The [Center for Student Advocacy and Community \(CSAC\)](#) is where you can go if you need help but don't know where to start. CSAC is a "home away from home" and serves as a [resource hub](#) to help you get the resources needed to support academic and personal success. Through our [Cougar Cupboard](#), all students can get up to 30 lbs of FREE groceries a week. Additionally, we provide 1:1 appointments to get you connected to on- and off-campus resources related to essential needs, safety and advocacy, and more. The [Cougar Closet](#) is a registered student organization advised by our office and offers free clothes to students so that all Coogs can feel good in their fit. We also host a series of cultural and community-based events that fosters social connection and helps the cougar community come closer together. Visit the CSAC homepage or follow us on Instagram: @uh_CSAC and @uhcupbrd. YOU belong here.

Women and Gender Resource Center

The mission of the [WGRC](#) is to advance the University of Houston and promote the success of all students, faculty, and staff through educating, empowering, and supporting the UH community. The WGRC suite is open to you. Stop by the office for a study space, to take a break, grab a snack, or check out one of the WGRC programs or resources. Stop by Student Center South room B12 (Basement floor near Starbucks and down the hall from Creation Station) from 9 am to 5 pm Monday through Friday.

Academic Honesty Policy

High ethical standards are critical to the integrity of any institution, and bear directly on the ultimate value of conferred degrees. All UH community members are expected to contribute to an atmosphere of the highest possible ethical standards. Maintaining such an atmosphere requires that any instances of academic dishonesty be recognized and addressed. The [UH Academic Honesty Policy](#) is designed to handle those instances with fairness to all parties involved: the students, the instructors, and the University itself. All students and faculty of the University of Houston are responsible for being familiar with this policy.

Excused Absence Policy

Regular class attendance, participation, and engagement in coursework are important contributors to student success. Absences may be excused as provided in the University of Houston [Undergraduate Excused Absence Policy](#) and [Graduate Excused Absence Policy](#) for reasons including medical illness of student or close relative, death of a close family member, legal or government proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Under these policies, students with excused absences will be provided with an opportunity to make up any quiz, exam or other work that contributes to the course grade or a satisfactory alternative. Please read the full policy for details regarding reasons for excused absences, the approval process, and extended absences. Additional policies address absences related to [military service](#), [religious holy days](#), [pregnancy and related conditions](#), and [disability](#).

Recording of Class

Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the [Justin Dart, Jr. Student Accessibility Center](#). If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor's recordings for their own studying and notetaking. Instructor's recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.

Course Objectives and Student Learning Outcomes

You will learn about the basic chemical principles that are fundamental for the study of organic and biological molecules. These topics include: bond polarity, molecule polarity, resonance, formal charges, nomenclature, orbital hybridization, atomic geometry, molecular structure, stereochemistry and organic reaction mechanisms. You will be introduced to the different functional groups of organic chemistry and will study in detail the properties and reactions of alkanes, alkyl halides, alkenes, alkynes, and alcohols.

Discussion and Lecture Topics

Please see Course Schedule for the list of topics.