

Chemistry 2310 - Organic Chemistry I Syllabus – Fall 2019

Instructor: Sushma Saraf, Ph.D.; Office 1475 GH; Email: s.saraf@utah.edu

Office Hours: Tuesday 11:00 AM - 12:00 PM, Thursday 11:00 AM - 12:00 PM or by appointment

Administrative Assistant: Cassie Denison - Office: 1473 Gauss Haus (GH); Email:

cassie.denison@utah.edu

Teaching Assistants: Ashley Anderson, Avery Hazelbaker, Hailey Lawrence, Kaylin Martinson, Akemi Nguyen, Matthew O'Keefe, Hanthao Phan, Omar Shihab, Jared Tran, and Kevin Wolfe

Class Time: MW 6-8pm HEB 2008

Required Materials:

1. **Organic Chemistry (3rd Ed.) David Klein.** The ebook version can also be purchased from various sites (CourseMart, Collegebookrenter, Bookrenter etc.). The 1st and 2nd Ed will also work however the *homework problems will be assigned from the 3rd edition* – will be held on reserve at the Marriott library and in the Organic Chemistry Study Center. Online materials will not be needed for this course and you do not need the online code.
2. **Molecular Modeling Kit** – any kind will do.

Recommended Materials:

1. Student Study Guide and Solutions Manual Organic Chemistry 3rd Ed. David Klein.
2. Organic Chemistry as a Second Language David Klein (any edition is fine). Recommended for students that struggles in General Chemistry or have had a long break from taking chemistry.

Co/Pre-requisites: CHEM 1210 and CHEM 1220 are pre-requisites for CHEM 2310. No student should take CHEM 2310 without a C or better in CHEM 1220 and it is highly recommended that you take CHEM 2310 and the lab course (CHEM 2315) during the same semester.

Canvas: This course will be listed on Canvas as **CHEM 2310-004 Fall 2019**. This site is maintained by Dr. Saraf, the instructor, and you can find lecture slides, additional resources, syllabus and schedule, and important updates and announcements from the instructor. This will be **my main form of communication with students outside of lecture hours** so be sure to check your Canvas announcements on a regular basis!

Expected Learning Outcomes:

At the end of this course you will be able to

1. Compare and predict the reactivity and stability of organic molecules based on their structure (hybridization, geometry, relevant resonance structures, atom size/electronegativity, charge).
2. Use structure (ARIO) to predict the strength and position of acid/base equilibrium
3. Predict curved arrow mechanisms of organic reactions.
4. Determine structure of an organic molecules using molecular formula, IR, and NMR spectroscopic data.
5. Predict products of an organic reaction based on the mechanism.
6. Design the synthesis of organic molecules.

Important Dates:

Last day to add without a permission code: Friday Aug. 23rd

Last day to add/drop: Friday Aug. 30th

Last day to withdraw: Friday Oct. 18th

Grading:

3 Exams (100 pts each)	= 300
2 Quizzes (40 pts each)	= 80
End of Chapter HW Problems (13 x 5 each)	= 65
Activity Worksheets (13 x 10 each)	= 130
<u>Final Exam</u>	<u>= 150</u>
Total Points	= 725

Grades will be assigned no harder than using the following scale:

A = 93% and above, A- = 90-92%, B+ = 87-89%, B = 83-86%, B- = 80-82%, C+ = 77-79%, C = 73-76%, C- = 70-72%, D+ = 67-69%, D = 63-66% D- = 60-62%, E = <60%

Exams: Each exam will focus on the chapters recently covered in class, any associated discussion activity problems, and end of the chapter problems. The dates and times for Exams are during normally scheduled lecture hours. Do not make commitments that conflict with these dates. Students traveling for University approved reasons (student athletes, etc.) must contact me a minimum of 7 days prior to the exam to arrange for an alternate testing site. ***An unexcused absence from an exam will result in a zero score. Exams will NOT be rescheduled because of conflicts with work schedules*** – please plan accordingly. There will be ***no makeup exams***.

Exam Corrections: Exam scores will not be curved however you will have the opportunity to submit exam corrections for ***extra-credit***. Exam correction dates will be given at the time of the return of your exams and there will be no late submissions accepted for exam corrections.

Re-grading: If you notice a grading or addition error, the exam may be submitted for re-grading. To do so you will need to completely fill out the Exam Re-Grade Submission Form found on the course Canvas site, attach it to the exam to be re-graded and submit to Dr. Saraf. ***The entire exam will be re-graded and not just the problem in question.*** Re-grades will be accepted up to 3 days following exam distribution. **DO NOT CHANGE YOUR EXAM IN ANY WAY.** Doing so will be dealt with according to the University Academic Dishonesty policy outlined below.

Academic Dishonesty: By submitting an assignment, you are representing that it is your own work and that you have followed the rules associated with the assignment. Incidents of academic misconduct (including cheating, plagiarizing, research misconduct, misrepresenting one's work, and/or inappropriately collaborating on an assignment) will be dealt with severely, in accordance with the Student Code (<http://www.admin.utah.edu/ppmanual/8/8-10.html>). A single instance of academic misconduct may result in a failing grade for the course. Multiple instances of academic misconduct may result in probation, suspension or dismissal from a program, suspension or dismissal from the University, or revocation of a degree or certificate.

Hints on how to Succeed in CHEM 2310

1. **Come to class and take careful notes during lecture:** The outline of the lecture notes will be available on Canvas at least 24 hrs prior to the lecture. Print the notes (4 slides/page works well) or pull up the lecture outlines on your tablet so you can fill in the important details, mechanisms, etc. *Re-visit your notes shortly after lecture.* Summarize the important points of each slide and make sure that you understand the important concepts and ask questions if you do not.
2. **Read the textbook:** Pre-read the material in Klein relevant to the lecture BEFORE the lecture. Focus on the main points and attempt to solve some of the in text problems to familiarize yourself with the language and concepts so you will not be overwhelmed in lecture.
3. **DO NOT GET BEHIND:** THIS IS THE MOST IMPORANT! We will be covering a large amount of complicated material in a short amount of time and each concept will build upon the knowledge you have already accumulated. For these reasons, I encourage you to stay caught up and spend time daily reading the text, solving problems, and/or practicing mechanisms and synthesis. Do NOT try to CRAM or MEMORIZE. Regular, rigorous training for the brain is necessary to compete in this o-chem marathon! Students that have had the most success have committed many hours (~12) a week to mastering the material. If you find you cannot make the necessary time commitment to get the grade you want, you might consider withdrawing from the course and taking it another semester when you can spend more time on it.
4. **Prepare for lecture:** Spend about 10-15 minutes before each lecture skimming the topics in the text to be covered that day. You will be able to comprehend more during lecture and it will seem more relevant and interesting if you have a basic familiarity with the assigned material before you walk into class. Lecture will focus on the most challenging and important concepts from the text and the application of these concepts. Use your lecture notes as a guide to the topics that are most important then go back and read more carefully these sections in the text.
5. **Practice:** It is highly recommended that you work through all of the assigned problems from the chapters and the discussion worksheets – early and until you have mastered the problem on your own. It is also helpful to do the problems embedded in the text to get a feel for how well you grasp each section. If you find you have difficulty go back and read that section more carefully.
6. **Study Groups:** You can learn much from a group atmosphere and explaining a concept to a classmate is one of the best ways to understand a concept yourself.
7. **Ask for help!** It is my hope that you feel comfortable coming to myself or your TAs with questions any time. It is never too late to ask a question. In addition, there are other resources available depending on your needs:
 - a. The Tutoring Center offers one-on-one or group tutoring sessions. More information at www.sa.utah.edu/tutoring or 581-5153.
 - b. Private tutoring: a list of graduate student tutors is available in the Department of Chemistry Main Office (HEB 2020) and is posted online at: <http://www.chem.utah.edu/undergraduate/resources/grad-tutors.php>
 - c. Organic Chemistry Study Center. Teaching assistants for all organic courses hold

office hours in TBBC 2619. Beginning the second week of class a list of available tutors/times will be found at:

<http://www.chem.utah.edu/undergraduate/resources/ochem-study.php>

- d. The Learning Enhancement Center offers a variety of workshops covering topics such as Time Management and Test Taking Skills. They also offer a course for students called Educational Psychology 2600: Strategies for College Success. It is a 3-credit hour class that helps students with study skills, research skills, testing taking skills, etc. Find out more at <https://learningcenter.utah.edu/or> 581-8746

The Americans with Disabilities Act. The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the **Center for Disability & Access (CDA), 162 Olpin Union Building, 801-581-5020**. CDA will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability & Access.

Addressing Sexual Misconduct. Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the **Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066**. For support and *confidential consultation*, contact the **Center for Student Wellness, 426 SSB, 801-581-7776**. **To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).**

Pronouns. Class rosters are provided to the instructor with the student's legal name as well as "preferred first name" (if previously entered by you in the Student Profile section of your CIS account, which can be managed at any time). While CIS refers to this as merely a preference, I will honor you by referring to you with the name and pronoun that feels best for you in class or on assignments. Please advise me of any name or pronoun changes so I can help create a learning environment in which you, your name, and your pronoun are respected. If you need any assistance or support, please reach out to the LGBT Resource Center.

https://lgbt.utah.edu/campus/faculty_resources.php

Wellness Statement. Personal concerns such as stress, anxiety, relationship difficulties, depression, cross-cultural differences, etc., can interfere with a student's ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for **Student Wellness at www.wellness.utah.edu or 801-581-7776**.

Campus Safety. The University of Utah values the safety of all campus community members. To report suspicious activity, call campus police at **[801-585-COPS \(801-585-2677\)](tel:801-585-2677)**. You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.

Diversity Statement

My intent for this class is to create a space where students feel included, heard, and respected, and that students’ diverse identities and backgrounds are valued and viewed as an asset. We all come to this course with unique life experiences, and there will be diversity of perspectives in our discussions. This diversity is our strength as we strive to communicate and connect across difference, and build an inclusive and equitable learning community.

**This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Lab Schedule to accommodate the needs of our class. Any changes will be announced via your university listed email and/or posted on Canvas under Announcements.*

Map of 1st Floor HEB - Arrows indicate how to find my office - 1475 GH

