

CHEMISTRY 2320 Tentative Schedule – Spring 2022

(Subject to moderate change)

Classes held on Mondays and Wednesdays, 5:15 – 7:45 p.m.

Date	Watch or Read this Before Class (see textbook):	In Class We'll Work On:	Other Stuff (Exams done in Testing Centers):
1/10	Welcome Video	Group Assignment & Intro Survey	Intro Survey (on Canvas): 1/10 – 1/22
1/12	Chapter 9: sections 9.5 – 9.6	Spectroscopy Review	
1/17	No Class: Martin Luther King, Jr. Day		
1/19	Chapter 11: sections 11.1 – 11.2	Quiz 11 (on Canvas) Pr. Set 11 (Ch. 11) – due by 1/25	
1/24	Chapter 11: section 11.3	Pr. Set 11 (Ch. 11)	
1/26	Chapter 11: sections 11.4 – 11.5	Pr. Set 11 (Ch. 11), Exam 1 Review*	Exam 1 (Chs. 9, 11) 1/27 – 2/3
1/31	Chapter 12: sections 12.1 – 12.2	Quiz 12 (on Canvas) Pr. Set 12 (Ch. 12) – due by 2/8	
2/2	Chapter 12: sections 12.3 – 12.4	Pr. Set 12 (Ch. 12)	Anonymous Survey (on Canvas): 2/1 – 2/15
2/7	Chapter 12: sections 12.5 – 12.6	Pr. Set 12 (Ch. 12)	
2/9	Chapter 13: sections 13.1 – 13.2	Quiz 13 (on Canvas) Pr. Set 13 (Ch. 13) – due by 2/17	
2/14	Chapter 13: sections 13.3 – 13.4	Pr. Set 13 (Ch. 13)	Exam 2 (Chs. 12-13) 2/17 – 2/24
2/16	Chapter 13: sections 13.5 – 13.6	Pr. Set 13 (Ch. 13), Exam 2 Review*	
2/21	No Class: Presidents' Day		
2/23	Chapter 14: sections 14.1 – 14.2	Quiz 14 (on Canvas) Pr. Set 14 (Ch. 14) – due by 3/3	
2/28	Chapter 14: sections 14.3 – 14.5	Pr. Set 14 (Ch. 14)	
3/2	Chapter 14: sections 14.6 – 14.7	Pr. Set 14 (Ch. 14)	No Class: Spring Break
3/7			
3/9			
3/14	Chapter 15: sections 15.1 – 15.2	Quiz 15 (on Canvas) Pr. Set 15 (Ch. 15) – due by 3/22	
3/16	Chapter 15: sections 15.3 – 15.4	Pr. Set 15 (Ch. 15)	
3/21	Chapter 15: section 15.5	Pr. Set 15 (Ch. 15), Exam 3 Review*	
3/23	Chapter 16: sections 16.1-16.3	Quiz 16 (on Canvas)	Exam 3 (Chs. 14-15) 3/22 – 3/29
3/28	Chapter 16: section 16.4-16.6	Pr. Set 16/17/18 (Chs. 16-18) – due by 4/7	
3/30	Chapter 17: sections 17.1-17.3	Quiz 17 (on Canvas) Pr. Set 16/17/18 (Chs. 16-18)	
4/4	Chapter 17: sections 17.4-17.6	Pr. Set 16/17/18 (Chs. 16-18)	Exam 4 (Chs. 16-18) 4/7 – 4/14
4/6	Chapter 18: sections 18.1-18.5	Quiz 18 (on Canvas) Pr. Set 16/17/18 (Chs. 17-18) Exam 4 Review*	
4/11	Special Topics 1: A review of Chapters 2-5	Quiz ST1 (at the start of class) Pr. Set ST1 (special topics 1) due by 4/14	
4/13	Special Topics 1	Pr. Set ST1 (special topics 1)	No-Test Week: 4/20 – 4/26
4/18	Special Topics 2: A review of Chapters 6-10	Quiz ST2 (at the start of class) Pr. Set ST2 (special topics 2) due by 4/21	
4/20	Special Topics 2	Pr. Set ST2 (special topics 2)	
4/25	Final Exam Review*		Anonymous Survey (on Canvas): 4/8 – 4/23
4/28 – 5/4	Comprehensive Final		

*During Exam reviews, we will go over the Exam Study Guides (available through Canvas) together.

CHEMISTRY 2320 – Spring 2022
Organic Chemistry II
Mondays and Wednesdays, 5:15 – 7:45 p.m.

Section	Location	Room
BB1	Brigham City Campus	Classroom and Student Services
KB1	Blanding Campus	USUE Blanding Center
EB1	Moab	USU Moab Center
MB1	Logan Campus	Agricultural Sciences 101
TB1	Tooele Campus	USU Tooele Campus 113B12
PB1	Price	USUE Reeves Building 129
UB1	Vernal	BEERC B133
	Roosevelt	Roosevelt SC179

General Information

Instructor: Dr. Mike Christiansen (please just call me Mike)
Email: m.christiansen@usu.edu (please do NOT message me through Canvas; I don't check it)
Office: 221G Bingham Building
Phone: **Office:** 435-722-1761 **Cell:** 435-828-0140
Office hours: Mondays and Wednesdays, 4 – 5 p.m.

Required: *Organic Chemistry Unleashed, by Mike Christiansen*, ISBN #978-0-9866151-0-8 (<https://app.tophat.com/e/074346>), published by Tophat. You should receive an email with instructions on how to buy our class text, which is a fully-online textbook. (More on this later.)

Optional: Molecular Structure Model Kit (strongly recommended, available for check-out cost-free)

Prerequisites: CHEM 2310 or CHEM 2300 with instructor permission

Course Description: This course will build on the principles introduced in CHEM 2310. You will learn many new reactions and will get the chance to use these to design more advanced molecular syntheses. You will also see how organic biomolecules react and interact in biological systems. In this course you will gain a broad knowledge of numerous organic reactions, the ability to use them in more advanced syntheses, and a preparatory introduction to biochemistry.

Course Objectives:

By the end of the semester you should:

1. Know how to use many more organic reactions than you learned in CHEM 2310.*, ‡
2. Be able to devise organic syntheses of more advanced molecules than you did in CHEM 2310.†
3. Have an introductory knowledge of how organic chemistry applies to biological systems.*, ‡
4. Gain improved teamwork skills.‡

*IDEA objectives 1-2

†IDEA objective 3

‡IDEA objective 7

‡IDEA objective 5

(For more on using the new IDEA course evaluation system, please see the IDEA tutorial I've posted on Canvas.)

Course Structure: This course is NOT an online class. In fact, I DO expect you to attend every class. However, in response to the global pandemic (see <https://www.usu.edu/covid-19/index> and <https://www.usu.edu/policies/20-t4/>), various structural changes have been made.

To begin, this class does NOT follow a traditional-lecture format. Instead, lecture videos are pre-recorded and posted in our Tophat textbook. **Your assignment is to read the chapter sections or watch their corresponding videos (found in your online Tophat textbook) before class**, according to the schedule on Page 1 of this document. We will spend in-class time doing problem sets, either individually or in groups (see **Problem Sets** below). This type of course structure, where you watch lecture videos online outside of class and then do “homework” in class, is called **flipped learning**. I flip my classes for the following reasons:

- Once students get used to it, most strongly prefer it to traditional lecture.
- It generally produces higher grades than traditional lecture.
- I get to know my students better, which means (when applicable) I can write better letters of recommendation for you later on.
- You can re-watch my videos as many times as you want, which can better help you prepare for our exams and (if applicable) entrance exams to professional schools later on.
- Because you do your problem sets in class, with me present, I am here to help answer your questions, right when you need me most.

To take the greatest advantage of the **flipped learning** videos outside of class, you must:

- Watch the videos BEFORE class.
- Take notes and write down questions while you watch the videos.
- Do NOT do other activities (browse social media, listen to music, do your dishes) while watching the videos.
- Come to class. (Don't skip, except in unavoidable emergencies.)

Peer Grades: For those who choose to work in groups (see **Problem Sets** below), in order to encourage participation and to discourage freeloading, at the end of the semester, I will have you anonymously assign a peer grade to each member of your group (including yourself), based on how much each person contributed to your group problem sets. Your individual problem set score will then be readjusted to reflect the combined-average grade you receive from you and your fellow group members, according to the following equation:

Individual Problem Set Grade = (Group's Total Problem Set Grade) × (Y)
(Y) = the numerical average of Peer Grades, by the following conversion:

F	D-	D	D+	C-	C	C+	B-	B	B+	A-	A
0.5	0.575	0.65	0.6833	0.7167	0.75	0.7833	0.8166	0.85	0.8833	0.9167	1

<https://www.youtube.com/watch?v=nivbOZPeIO4>

Attendance: Attendance is not mandatory, but in-class problem sets are integral to the course, and we will work on problem sets during class. Thus, your grade will correlate strongly with your attendance. Additionally, if you ask me for letters of recommendation later on, I will take your attendance into serious consideration.

Canvas: Beyond videos, I will also post problem sets, lecture slides, overhead notes, answer keys, study guides, announcements, grades, and schedule changes on Canvas. Please check Canvas regularly.

Zoom: In-class proceedings will be recorded using Zoom. You can access our Zoom recordings through our Canvas homepage by clicking MEDIA GALLERY on the left panel, which will let you to re-watch anything you miss in class. Please do NOT use this as an excuse to regularly skip class.

Time Expectations: Your primary homework is to watch or read the assigned chapter sections from each chapter before class, study for exams, and prepare for in-class problem sets. If you want more practice, please do additional problems from each chapter or click the “**Additional Practice Problems**” link on our Canvas homepage. Extra work is recommended, but not required. Please note that chemistry is a subject that requires a large time commitment to master.

Problem Sets: Problem sets are posted on Canvas in advance. Most take multiple class periods to finish. The due date is shown at the top of each problem set and on our course schedule. Everyone in your group receives the same score (later adjusted by your **Peer Grade**, described above), so it’s in your best interest to contribute. Your lowest problem set score gets dropped. As a group, you may use any resource you want on problems sets: notes, the text, the internet, me, and each other. However, I warn you against mindlessly copying answers, because it will disadvantage you and lower your exam performance. Problem set answer keys are posted the morning after each one is due.

Quizzes: For each new chapter, there will be a five-point in-class quiz, based on the material covered in the assigned sections from that chapter before class. These quizzes are given to encourage you to watch or read the assigned chapter sections before class. Your lowest quiz score will be dropped. No makeup quizzes will be given.

Exams: Most of your grade comes from exams (four midterms and one comprehensive final), which are based largely on problem sets. Exams will be taken in your testing centers and are NOT done in groups. Exams will cover information from our video lectures and/or class and will include modified problems from the text or problem sets. The comprehensive final will have questions from old exams and quizzes, as well as new questions. Exams will be given on the days indicated on the class schedule. If you know ahead of time that you will miss an exam, and if the reason is valid (determined at my discretion), arrangements will be made. No after-the-fact excuses/absences will be considered!

Grade Breakdown:

Your course grade will be calculated, based on the following point amounts:

Intro Survey		5 points (~1%)
10 quizzes	(5 points each – lowest score dropped)	45 points (7.3%)
8 problem sets	(10 points each – lowest score dropped)	70 points (14.7%)
4 Midterm Exams	(100 points each – lowest score dropped)	300 points (55.0%)
Comprehensive Final	(100 points, MANDATORY)	100 points (18.3%)
Total		520 points

Of the four midterm exams, **only three will be counted** toward your final grade. If you take all four midterms, your lowest score will be dropped. The comprehensive final is mandatory and will not be dropped. Your final course grade will be based on the following scale:

A: 100-93% A-: 92-90% B+: 89-87% B: 86-83% B-: 82-80%
C+: 79-77% C: 76-73% C-: 72-70% D: 69-60% F: 59% and below

Statewide Mentoring Program

For students at any of our statewide campuses (not available in Logan yet, so sorry!), I encourage you to consider signing up for our USU Statewide Faculty-to-Student Mentoring Program. The purpose of this program is to help students to: (1) successfully adjust to university life; (2) realize they are valued members of the university; (3) have a clear sense of purpose; and (4) achieve their educational goals. If you sign up, then you will be assigned a faculty member, who will help provide academic support, career guidance, and psychosocial support. If you sign up, you will also have the opportunity to participate in a voluntary research study, whose purpose is to evaluate if the program's effectiveness. The total time commitment is between 2 and 5 hours per semester for as long as you are enrolled in the program. To learn more, please visit <https://statewide.usu.edu/mentor>. To sign up, please go to https://usu.co1.qualtrics.com/jfe/form/SV_eQdWbzozv34udr7.

University Policies

COVID-19 Classroom Safety Protocols: While not mandated, USU encourages and welcomes the wearing of masks in all university building, especially within 6 feet of others. Furthermore, it is strongly encouraged to take measures to mitigate risk as recommended by federal and state public health officials. These measures include getting fully vaccinated, staying home if you are sick (even with mild symptoms), and maintaining good hygiene including frequent hand washing. Testing will be provided, without charge, throughout the semester and the USU COVID Webpage will provide up-to-date information. Please remember; COVID can have significant impact on the health and safety of those around you so remain vigilant and respectful.

Academic Freedom and Professional Responsibilities: Academic freedom is the right to teach, study, discuss, investigate, discover, create, and publish freely. Academic freedom protects the rights of faculty members in teaching and of students in learning. Freedom in research is fundamental to the advancement of truth. Faculty members are entitled to full freedom in teaching, research, and creative activities, subject to the limitations imposed by professional responsibility. USU Policy 403 (<http://www.usu.edu/hr/files/uploads/Policies/403.pdf>) further defines academic freedom and professional responsibilities.

Academic Integrity – the “Honor System”: The University expects that students and faculty alike maintain the highest standards of academic honesty. The Code of Policies and Procedures for Students at Utah State University (Student Conduct) addresses academic integrity and honesty and notes the following:

Academic Integrity: Students have a responsibility to promote academic integrity at the University by not participating in or facilitating others' participation in any act of academic dishonesty and by reporting all violations or suspected violations of the Academic Integrity Standard to their instructors.

The Honor Pledge: To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to the following Honor Pledge: "I pledge, on my honor, to conduct myself with the foremost level of academic integrity". Violations of the Academic Integrity Standard (academic violations) include, but are not limited to cheating, falsification, and plagiarism.

Plagiarism: Plagiarism includes knowingly "representing by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials." The penalties for plagiarism are severe. They include warning or reprimand, grade adjustment, probation, suspension, expulsion, withholding of transcripts, denial or revocation of degrees, and referral to psychological counseling.

Discrimination and Sexual Misconduct: USU strives to provide an environment for students and employees that is free from discrimination and sexual misconduct. If you experience sexual misconduct or discrimination at any point during the semester inside or outside of class, you are encouraged to contact the USU Title IX Coordinator via Old Main room 161 in Logan, 435-797-1266, titleix@usu.edu, or at equity.usu.edu/report. You can learn more about the USU resources available for individuals who have experienced sexual misconduct at sexualrespect.usu.edu. Resources for individuals who have experienced discrimination are listed at equity.usu.edu.

Required Reporting of Sexual Misconduct: The instructor is designated by USU as a "reporting employee." This means that if you share information about sexual misconduct (sexual harassment, sexual assault, relationship violence, or sex-based stalking) with the instructor, they will report that information to the USU Title IX Coordinator. The instructor is also required to tell you about designated confidential resources, supportive measures, and how you can file a report with the USU Title IX Coordinator.

Students with Disabilities: USU welcomes students with disabilities. If you have, or suspect you may have, a physical, mental health, or learning disability that may require accommodations in this course, please contact the Disability Resource Center (DRC) as early in the semester as possible (University Inn # 101, 435-797-2444, drc@usu.edu). All disability related accommodations must be approved by the DRC. Once approved, the DRC will coordinate with faculty to provide accommodations.

Withdrawal Policy and "I" Grade Policy: If a student does not attend a class during the first week of the term or by the second class meeting, whichever comes first, the instructor may submit a request to have the student dropped from the course. (This does not remove responsibility from the student to drop courses which they do not plan to attend.) Students who are dropped from courses will be notified by the Registrar's Office through their preferred e-mail account.

Students may drop courses without notation on the permanent record through the first 20 percent of the class. If a student drops a course following the first 20 percent of the class, a W will be permanently affixed to the student's record (check General Catalog for exact dates).

Students with extenuating circumstances should refer to the policy regarding Complete Withdrawal from the University and the Incomplete (I) Grade policy in the General Catalog.

No-Test Days Policy: For classes that meet for a full semester, a five-day period designated as "no-test" days precedes final examinations. During this time, no major examinations, including final examinations will be given in order that students may concentrate on classwork, the completion of special assignments, writing projects, and other preparation for duly scheduled final examinations. Approved exceptions include final papers, weekly chapter quizzes, quizzes, projects, and examinations associated with a lab that does not meet during final examinations. This policy does not apply to classes that meet only during the second 7-week session of the semester or to classes offered during the summer term. Complete information related to Final Examination Policies (<https://catalog.usu.edu/content.php?catoid=12&navoid=3311>) can be reviewed in the General Catalog.

Assumption of Risk: All classes, programs, and extracurricular activities within the University involve some risk, and some involve travel. The University provides opportunities to participate in these programs on a voluntary basis. Therefore, students should not participate in them if they do not care to assume the risks. Students can ask the respective program leaders/sponsors about the possible risks a program may generate, and if students are not willing to assume the risks, they should not select that program. By voluntarily participating in classes, programs, and extracurricular activities, students do so at their own risk. General information about University Risk Management policies, insurance coverage, vehicle use policies, and risk management forms can be found at <http://www.usu.edu/riskmgt/>.

Mental Health: Mental health is critically important for the success of USU students. As a student, you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce your ability to participate in daily activities. Utah State University provides free services for students to assist them with addressing these and other concerns. You can learn more about the broad range of confidential mental health services available on campus at Counseling and Psychological Services (CAPS, <https://counseling.usu.edu/>).

Students are also encouraged to download the “SafeUT App” (<https://healthcare.utah.edu/uni/programs/safe-ut-smartphone-app>) to their smartphones. The SafeUT application is a 24/7 statewide crisis text and tip service that provides real-time crisis intervention to students through texting and a confidential tip program that can help anyone with emotional crises, bullying, relationship problems, mental health, or suicide related issues.

I have read and understood the course syllabus.

Printed Name

Signature

Date