Syllabus "Lectures in Organic Chemistry" (1st Semester) Chemistry 241A, Summer 2025

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.

Course Description

This course teaches the fundamentals of organic chemistry, with a focus on organic structures, properties, transformations (organic synthesis), and the mechanisms of those transformations (organic reaction mechanisms).

Course Prerequisites: CHEM 152, 142, 162, or 105B.

Instructor and Contact Information

Instructor:	Dr. Lisa Dollinger (she/her)
Office:	Koffler 335
Phone:	(520) 621-2089
email:	Idolling@arizona.edu
Class meetings:	This is a completely asynchronous online class.
Help Hours:	See "Teaching Team Contact/Help Hours" module in D2L

https://arizona.zoom.us/j/84890509815

Course Objectives

This first semester course covers the chemistry from the source textbook from chapters 1-12.

Expected Learning Outcomes

Overarching Learning Outcomes for the entire 241 sequence:

Having completed Chemistry 241A and Chemistry 241B, students will be able to discuss, both orally and in writing:

- The structure and bonding of organic compounds and the relationship of structure and bonding to physical and chemical properties.
- Reactions that transform one organic compound into another.
- The detailed mechanisms whereby organic reactions occur.

Technology Requirements

To participate in this course, you will need

- a desktop or laptop **computer** with the Chrome browser installed
- a broadband wired or wireless (3G, 4G/LTE, or 5G) internet connection
- a web camera
- access to Desire2Learn (D2L)

If you have technology issues that may impede your participation in this course, please contact me no later than the first week of class. Assistance with technology resources on campus can be found at <u>https://student.it.arizona.edu/resources</u>.

Textbook/Homework/Assessment Package (required!)

- Smith Organic Chemistry 6e 2020 Connect McGraw Hill
- Accompanying Student Solutions Manual for Smith 6e via ebook (link will be made available upon start date in D2L)
- This course will use Proctorio, a browser-locking and remote proctoring solution designed to protect the integrity of this course's assessments, within your Connect quizzes). <u>NOTE</u>: Proctorio will create a recording of video, audio, and screen activity while you are completing assessments, so a web camera is required.

The textbook and homework/assessment package (i.e., Connect) will come packaged as a bundle via Inclusive Access (IA) through D2L. Ensuing IA instructions will be emailed to you by the bookstore, as well as specific pricing information.

Access to the digital course materials is **required** to participate in the class. They will be available on the first day of class or within 24 hours of registering if adding class after the first day of class through IA.

If you do not wish to purchase the course materials through the IA program (note: IA is the <u>least</u> expensive way to access the digital material), you have until the add/drop day to **opt-out**. To avoid being billed you **must** opt-out online before the deadline: go to <u>d2l.arizona.edu</u>, login with your NetID, select > My D2L Tools and proceed to "Inclusive Access Opt Out." If you drop the course by the add-drop date you will have your access turned off, be automatically opted-out, and will not be billed.

<u>Not Required</u>—For those of you wishing to have a hard copy of the book, upon purchase of your Connect subscription (after the add drop date has passed), you are able to purchase a discounted loose-leaf version of the textbook (in full color) from within your Connect course. Cost is \$39 (including shipping and handling). For support on purchasing your loose-leaf option, you will contact the Connect helpdesk.

Review the FAQs at <u>Bookstore Website</u> for more information. Please feel free to reach out if you have any questions or concerns to the UA BookStores Inclusive Access Team at <u>uabks-inclusiveaccess@email.arizona.edu</u>

Molecular Models Recommended

As organic molecules are three-dimensional objects, many students find working with a set of organic molecular models helpful and instructive. There are many organic

molecular model kits available at student bookstores and on the web. Most model sets are adequate, but I like the one by <u>Darling Models, Inc.</u> It is possible to split one of these model kits between 2 students and still have enough for the course. You will be allowed to use the models on quizzes and exams.

Course Format and Teaching Methods

This course will be taught using completely asynchronous online instruction. Each student is unique and is responsible for their own learning process and outcome. The material to be learned is contained in the source textbook, "Organic Chemistry", 6th edition, by Janice Gorzynski Smith. Both traditional printed and electronic versions of the textbook and solutions manual are available (vide supra).

We will be using a class **GroupMe** for class discussion/questions: <u>https://groupme.com/join_group/107742438/4wflHjPz</u>

The GroupMe is the best way for you to get help fast and efficiently from classmates, the teaching team, and myself. Rather than emailing questions, I encourage you to post your questions on the GroupMe.

Learning organic chemistry begins with drawing structures and mechanisms and you will miss out on the very first steps of learning the material if you do not take notes. You will be watching video lectures available for viewing through D2L in each unit section. These videos are recorded asynchronous lectures that cover the material in the textbook. As you watch the videos it is recommended that you **take notes**. You can do this in any manner that suites your learning best, however, a basic set of lecture slides are provided for each video to either print or download to a tablet where you can add in details to begin learning of how to write organic structures. Also, as you read the text and view the lectures, write down questions you wish to ask during office hours or on the GroupMe. The lectures largely follow the source textbook, and they often make more sense if you familiarize yourself with the material beforehand, so students may prefer to read the text before and/or after viewing lecture videos.

As with many other math and science courses, working problems is the only way to master organic chemistry. Homework is the best way to work problems to help master the material. Homework assignments will be assigned in the Connect online homework environment that accompanies the electronic version of the source textbook and linked through D2L in each Unit section. These required homework assignments will make up a significant part of your course grade and you have unlimited attempts to get them correct, so you should make every effort to complete them by the due dates published on D2L and Connect. There are additional problems for you to work from the textbook (a list of particularly relevant problems are listed in the Unit modules) and in the Unit's Additional Materials modules. In addition to extra problems, relevant tables and helpful guides can be found in the Unit's Additional Materials modules

Keep in mind that those who put in the most effort generally are the most successful.

Learning a difficult subject like organic chemistry requires commitment, effort, and followthrough. You are strongly encouraged to view all lectures and to set notifications in your D2L and to work on this course <u>each and every day</u>!

The material to be learned is laid out in the source text and the associated video lectures, which is reinforced by the online homework found in the Homework Assignments module on the D2L web page for this course. Due dates are intended to keep students progressing at a rate that will allow for you to keep up with the material as it is being presented. *It is very easy to get behind; don't let that happen to you!* Make a commitment from the start of the course to keep up with lectures and to never be late with an assignment. Put in the effort required to do your very best work on every assignment. Follow through by maintaining your high level of effort throughout the term.

Academic advising: If you have questions about your academic progress this term, or your chosen degree program, please note that advisors at the <u>Advising Resource Center</u> can guide you toward university resources to help you succeed.

Life challenges: If you are experiencing unexpected barriers to your success in your courses, please note the Dean of Students Office is a central support resource for all students and may be helpful. The <u>Dean of Students Office</u> can be reached at 520-621-2057 or <u>DOS-deanofstudents@email.arizona.edu</u>.

Physical and mental-health challenges: If you are facing physical or mental health challenges this semester, please note that Campus Health provides quality medical and mental health care. For medical appointments, call (520-621-9202. For After Hours care, call (520) 570-7898. For the Counseling & Psych Services (CAPS) 24/7 hotline, call (520) 621-3334.

The UA's policy concerning Class Attendance and Participation is available at: <u>https://catalog.arizona.edu/policy/class-attendance-and-participation</u>. The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable. Please see: <u>http://policy.arizona.edu/human-resources/religious-accommodation-policy</u>.

Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored. Please see: <u>https://deanofstudents.arizona.edu/policies/attendance-policies-and-practices</u>. *To request a disability-related accommodation to this attendance policy, please contact the Disability Resource Center at (520) 621-3268 or <u>drc-info@email.arizona.edu</u>. If you are experiencing unexpected barriers to your success in your courses, the Dean of Students Office is a central support resource for all students and may be helpful. The Dean of Students Office is located in the Robert L. Nugent Building, room 100, or call 520-621-7057.*

Assessment Components (Video Lectures, Homework, and Examinations–Point Values and Schedule/Due Dates)

NOTE: All assessments (videos, homework, and exams) are due/will close at MIDNIGHT Arizona time on the dates indicted below.

Lecture Videos (50 points): Since this class is in an online format, students are provided with lecture video content (see class schedule for exact due dates for video viewing). Each video is worth 0.91 points. and must be viewed BEFORE MIDNIGHT Arizona time on the day indicated in the course calendar on the due date. To receive points, you must complete the quiz embedded within the video. Once the due date/time has passed you still will be able to view the video in the D2L module "Lecture Videos for reference (NOT FOR CREDIT!!!)," but will not receive credit for doing so. Watching and completing these videos will make up part of your grade. There are 60 videos and each is worth 0.91 points, five video grades will be dropped. Hence, 50 points of your final grade will come from completing 55 of the lecture videos before the due date/time.

NOTE: To re-watch the videos <u>after the due date</u> go to the All lecture videos for review purposes (not graded) module under Content. If you get a message that says to Click to Sign In and Play Video, click that button and it should prompt you to log into UA with your net ID and password. To watch the video click the small arrow at the bottom right of the video. This will allow you to watch it directly in panopto.

Homework (100 points): Working problems is the only way to master organic chemistry. You will complete these assignments using the Connect software and the links for each assignment can be found in the Homework Assignments module in D2L. Each homework assignment is worth 12.5 points, hence 100 points of your class grade. The due dates for the Connect homework assignments are in the table below as well as on the course calendar, and on the Connect web page for this course. You have unlimited attempts to submit the homework assignments, so you should make every effort to get them correct and complete them by the due dates published on D2L and Connect.

Assignment	Торіс	Date
Homework 1 on	Chapter 1	Wed. 6/11
Homework 2 on	Chapters 2 and 3	Fri. 6/13
Homework 3 on	Chapter 4	Tues. 6/17
Homework 4 on	Chapters 5 and 6	Sat. 6/21
Homework 5 on	Chapters 7 and 8	Thurs. 6/25
Homework 6 on	Chapter 9	Mon. 6/30
Homework 7 on	Chapters 10-11	Thurs. 7/3
Homework 8 on	Chapter 12	Tues. 7/8

Examinations (200 points): Each midterm exam will be worth 100 points. Your lowest one (1) midterm exam score will be dropped. Hence, 200 points of your final grade will come from your higher mid-term exam scores.

Each mid-term exam will focus on the material covered since the previous exam. Nevertheless, the material builds, layer upon layer, and so is cumulative by its very nature. Knowledge and understanding of the principles, reactions, and mechanisms presented in earlier chapters is a prerequisite for success in later chapters and on subsequent examinations. To do well throughout this term, you must keep up, master the material, and remember it throughout your study of organic chemistry.

Assessment	Торіс	Date
Exam 1 on	Ch.1-4	Wed.,6/18
Exam 2 on	Ch. 5-8	Thurs., 6/26
Exam 3 on	Ch. 9-11	Sat., 7/5

Proctorio MUST be installed on your computer BEFORE Exam 1

You can load Proctorio by taking the **Proctorio Quiz** (5 extra credit points). It will be open on the first day of class and can be found in the Quiz Module.

<u>To receive the 5 extra credit points,</u> you may take it any time before midnight 6/17.

Please use the Chrome browser. Once you click on the quiz, you will need to install Proctorio on your computer. It also requires you to watch some orientation videos to familiarize yourself with the system and details all the technical requirements as well as how to get help if you are having issues during exams. You will be unable to take the Exams for credit if you don't have Proctorio and a web camera.

All Exams are open from 12:00 am – 11:59 pm (AZ time) on the day indicated in the class schedule (see last page).

- Calculators, cell phones, and other electronic devices are **prohibited** during quizzes and examinations. Organic molecular model sets, a periodic table, paper, and pencil will be allowed.
- If you miss an exam, you will receive a zero for that assessment which will count as your dropped exam. Makeup exams will be allowed with a Dean's excuse.

Final Exam (100 points): The Final Exam (Chapters 1-12) will be worth 100 points, and may not be dropped. It will be open on Connect from **on Thursday, July 10**

Grading Scale and Policies

University policy regarding grades and grading systems is available at <u>http://catalog.arizona.edu/policy/grades-and-grading-system</u>

Total points for the course will be determined as shown in the following table.

ASSIGNMENT	POINTS	
Videos	50	5 Will Be Dropped
Homework	100	Cannot Be Dropped
Exams	200	Lowest 1 Will Be Dropped
Final Exam	100	Cannot Be Dropped
TOTAL POINTS	450	

Final grades will be assigned based on the breakdown shown in the following table.

GRADE	Total Points	Percentage
А	396-450	88.0
В	342-	76.0
С	270-	60.0
D	202-	45.00

Requests for incomplete (I) or withdrawal (W) must be made in accordance with University policies, which are available at http://catalog.arizona.edu/policy/grades-and-grading-system#incomplete and http://catalog.arizona.edu/policy/grades-and-grading-system#Withdrawal respectively.

Dispute of Grade Policy: Inquiries concerning the grading of a particular examination must be submitted before the date of the next examination.

Scheduled Topics/Activities: See the Course Calendar (available on the course D2L site under the "Content" heading)

Classroom Behavior Policy: To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be reported to the Dean of Students.

Threatening Behavior Policy: The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. See http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students.

Accessibility and Accommodations: At the University of Arizona we strive to make learning experiences as accessible as possible. If you anticipate or experience barriers

based on disability or pregnancy, please contact the Disability Resource Center (520-621-3268, <u>https://drc.arizona.edu/</u>) to establish reasonable accommodations.

Code of Academic Integrity: Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See: <u>http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity</u>.

The University Libraries have some excellent tips for avoiding plagiarism, available at <u>http://new.library.arizona.edu/research/citing/plagiarism</u>.

Selling class notes and/or other course materials to other students or to a third party for resale is not permitted without the instructor's express written consent. Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may also constitute copyright infringement.

UA Nondiscrimination and Anti-harassment Policy: The University is committed to creating and maintaining an environment free of discrimination; see http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy. Our classroom is a place where everyone is encouraged to express well-formed opinions and their reasons for those opinions. We also want to create a tolerant and open environment where such opinions can be expressed without resorting to bullying or discrimination of others.

Additional Resources for Students

UA Academic policies and procedures are available at http://catalog.arizona.edu/policies

Student Assistance and Advocacy information is available at http://deanofstudents.arizona.edu/student-assistance

Confidentiality of Student Records

For details, please see: <u>http://www.registrar.arizona.edu/personal-information/family-educational-rights-and-privacy-act-1974-ferpa?topic=ferpa</u>

Subject to Change Statement

Information contained in the course syllabus, other than the grading and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
Wk 1	JUN 9	JUN 10	JUN 11	JUN 12	JUN 13	JUN 14	JUN 15
Ch 1-4	1(1-4)	1(5-8)	2(1-2)	2(3-4)	HW 2	4(1-4)	
			HW 1	3(1-2)	(2/3)		
Wk 2	JUN 16	JUN 17	JUN 18	JUN 19	JUN 20	JUN 21	JUN 22
Ch 4-7	4(5-8)	HW 3 (4)	EXAM 1	5(1-4)	6(1-2)	HW 4	
			(1-4)		7(1-2)	(5/6)	
Wk 3	JUN 23	JUN 24	JUN 25	JUN 26	JUN 27	JUN 28	JUN 29
Ch 7-9	7(3-5)	8(3-6)	HW 5 (7/	EXAM 2	9(1-4)	9(5-7)	
	8(1-2)		8)	(5-8)			
Wk 4	JUN 30	JUL 1	JUL 2	JUL 3	JUL 4	JUL 5	JUL 6
Ch 10-12	HW 6 (9)	10(1-4)	11(1-4)	HW 7		EXAM 3	
				(10/11)		(9-11)	
Wk 5	JUL 7	JUL 8	JUL 9	JUL 10	JUL 11	JUL 12	JUL 13
Ch 12	12(1-3)	12(4-6)	HW 8 (12)	FINAL			

COURSE CALENDAR AND SCHEDULE OF VIDEOS, HOMEWORKS, and EXAMS: