

Organic Chemistry II – 1111
CHEM 2452 Section 1
Summer Quarter, 2021



Welcome to Organic Chemistry II! This is the second of a three-quarter series in organic chemistry. The scope of this course broadly focuses on the chemistry of carbon and its compounds. We will discuss basic principles regarding chemical bonding, structure, and classification of organic molecules. We will then apply these concepts to study the chemical reactivity of such compounds. Understanding how molecules interact with others will allow for appreciation of chemical synthesis for the production of compounds useful for society, including pharmaceuticals, agrochemicals, plastics, pesticides and other materials.

Instructor: Professor Bryan J. Cowen

e-mail: bryan.cowen@du.edu

Phone: (303) 871-2559

Office: Seeley G. Mudd, Room 132 (Zoom)

Lecture and Recitation: MTWRF 9:00 a.m. – 10:50 a.m. through Zoom

Office Hours: By appointment on Zoom. Please e-mail me at least one day in advance.

Textbook: *Organic Chemistry, Sixth Edition*, by Marc Loudon and Jim Parise (Required)

Study Guide: *Study Guide and Solutions Manual to Accompany, Organic Chemistry, Sixth Edition*, by Marc Loudon and Jim Parise (Required)

Molecular Models: Molymod #62053 Organic Chemistry Molecular Model Set by Indigo Instruments or Darling Models from DU Bookstore (Required)

Exams: There will be two exams posted at 8 am on Friday, July 16 and Friday, July 23 worth 100 points each. They will be due that day by 5 pm (MDT). The final exam will also be worth 100 points.

Final Grade: Your final letter grade will be determined out of 300 points.

Lectures: I will cover most material on the ChemDraw and the whiteboard through Zoom. Class will be offered synchronous and will also be recorded and posted on Canvas for asynchronous access. ***It is likely I will need to supplement class time with additional asynchronous sessions to ensure we cover all the material for the quarter.*** If PowerPoint slides are periodically incorporated in lecture they will be posted afterwards on Canvas.

Canvas: The University of Denver uses Canvas as its learning management system. You may log in to <https://du.instructure.com> with your DU ID number and PioneerWeb password to access the course. Please ensure your settings allow for e-mail announcement notifications. Here are some helpful Canvas resources to get you started:

Canvas Student Quickstart Guide: <http://guides.instructure.com/m/8470>

Canvas Student Guide: <http://guides.instructure.com/m/4212>

Academic Integrity: I have high expectations for each and every one of you as students at the University of Denver. While I encourage group study sessions outside of class, I expect you to work independently during in class examinations. Any deviations from this policy will not be tolerated. For more information, please see the University of Denver's official Honor Code at: <http://www.du.edu/studentlife/studentconduct/>

Science and Engineering Center: Need extra help? The Science and Engineering Learning Center is a collaborative space staffed by undergraduate and graduate learning assistants (LAs) trained to assist students with some first and second year biology, chemistry, physics, computer science and engineering courses. Our goal is to help students grow as problem solvers by assisting with homework sets, lab reports, and preparing for exams. See <http://portfolio.du.edu/sec> for a complete schedule. Students can access Las by clicking on the Zoom "room" link at the top of each discipline schedule.

Preliminary Course Schedule – Subject to Change

Week #: Start Date	Topic	Reading
1: 07/12/21	Chapter 10: Alcohols and Thiols	pp 452 – 476
	Chapter 10: Oxidation and Chemical Synthesis	pp 476 – 504
	Chapter 11: Ethers, Epoxides, Glycols, Sulfides	pp 511 – 536
	Chapter 11: <i>Continued</i>	pp 536 – 560
	Chapter 12: Introduction to Spectroscopy	pp 569 – 585
	Chapter 12: <i>Continued</i>	pp 585 – 605
	EXAMINATION 1 (material from Chapter 10.1 through 12.6)	
2: 07/19/21	Chapter 13: NMR Spectroscopy	pp 611 – 645
	Chapter 13: <i>Continued</i>	pp 645 – 672
	Chapter 14: Alkynes	pp 681 – 708
	Chapter 15: Dienes, Resonance, Aromaticity	pp 712 – 741
	Chapter 15: <i>Continued</i>	pp 741 – 780
	Chapter 16: Benzene and Derivatives	pp 789 – 810
	Chapter 16: Electrophilic Aromatic Substitution	pp 810 – 830
	EXAMINATION 2 (material from Chapter 10.1 through 16.3)	
3: 07/26/21	Chapter 17: Allylic and Benzylic Reactivity	pp 836 – 851
	Chapter 17: <i>Continued</i>	pp 851 – 870
	Chapter 18: Aryl Halides	pp 879 – 901
	Chapter 18: <i>Continued</i>	pp 901 – 935
	Finish Course Material and Review	
<u>07/30/21 (F)</u>	<u>FINAL EXAMINATION (material from Chapter 10.1 through 18.11)</u>	