

Course Outline
Chemistry 118A, Fall 2021
Organic Chemistry for Health and Life Sciences
Lecture: TR 12:10–1:30 PM, 1100 CALIF

Instructor: Dr. M. Nasiri (mdnasiri@ucdavis.edu)

Office hours:

Instructor: Thursday 9:00-9:50, Wednesday 13:00-14:00 via Zoom

Head TA: Jiahui Wei Thursday 15:00-17:00. Room TBA

TAs: Canvas/Announcement/Office Hour (will be posted during the 1st week)

* Please read **Canvas/Announcements** since important information (exam time breakdown, proctoring processes, exam formats, changing due dates, etc.) will be posted under Canvas announcement tab. You may reply directly to the announcements if you have any questions.

Lecture texts: K. P. C. Vollhardt & N. E. Schore, "Organic Chemistry, 8th. Ed" and N. E. Schore, "Study Guide/Solutions Manual, 8th. Ed".

Molecular Models: The Maruzen HGS Set for Organic Chemistry is included in the discounted package.

Lab/Discussion Supplementary Booklet: Posted on Canvas

Course Description: The 118A, 118B, 118C series is for students planning professional school studies in health and life sciences. A rigorous, in-depth presentation of basic principles with emphasis on stereochemistry, spectroscopy, preparations and reactions of nonaromatic hydrocarbons, haloalkanes, alcohols and ethers.

Course Prerequisites: course 2C or 2CH with a grade C- or higher.

Academic Participation verification: participate.ucdavis.edu

Objectives: Upon completing this course students should know how to name simple compounds and draw their structures, which should include an understanding and facility with Lewis structures, principles of bonding, VSEPR and hybridization, resonance, and stereochemistry. Students should be able to predict the major products of chemical reactions involving alkanes, cycloalkanes, haloalkanes, alcohols and ethers and understand the application of basic principles of thermodynamics and kinetics to these transformations. Students should be able to formulate reaction mechanisms of each of these processes and understand their implications. They should be able to combine this knowledge to devise short multi-step methods for synthesis of molecules in these compound classes. Finally, students should have a working command of the use of spectroscopy in the elucidation of structures of simple organic molecules.

Exams:	Midterm 1- Thursday, Oct. 21	Chapters 1–4	25%
	Midterm 2- Thursday, Nov. 18	Chapters 5–7 & Sections 11.8-11.11	25%
	Final Exam: Mon. Dec.06 at 1:00pm	Chapters 1–10 & Sections 11.8-11	35%
	Discussion quizzes		15%
		Total	100%

Grades:

100-81% A⁺ - A⁻ 80-66% B⁺ - B⁻ 65-50% C⁺ - C⁻ 49-35% D⁺ - D⁻

- (1) Exam grading is determined by absolute quality of work. There is no preset curve. There is no quota or limit for any letter grades. Theoretically you could all get A's!
- (2) No late or early exams will be given (sorry, but the class is too large for that sort of thing). The course grades for students with a legitimate reason for missing a midterm will be determined by using a calculated value for the missing midterm (Written documentation of the reason for your absence will be needed for record keeping). The calculated score is based on your performance on the exams you took. Students who miss the final exam will be given an incomplete only if they have a valid reason for their absence and a passing grade going into the final.
- (3) Re-grading: If you think you deserve more points on an exam question than you received, write a short note indicating what we should look at, attach it to your test, and leave it with your TA by the deadline. Do not make any marks or changes on the exam itself or you will forfeit the right to a grade!

Sec	Day	Time	Building	Room	TA (25%)
A01	M	0510-0630P	WELLMN	7	Matthew Dyer
A02	M	0440-0600P	WELLMN	115	Neo Bao
A03	F	0510-0630P	WELLMN	101	Steven Gralinski
A04	M	0610-0730P	WELLMN	205	Haesoon Chang
A05	M	0610-0730P	WELLMN	109	Rishab Iyer
A06	M	0610-0730P	WELLMN	229	Haoqian Miao
A07	W	0610-0730P	PHYSICS	130	Neo Bao
A08	M	0710-0830P	SS&H	80	Matthew Dyer
A09	F	0110-0230P	WELLMN	207	Lovely Jain
A10	F	0310-0430P	WELLMN	123	Rishab Iyer
A11	T	1030-1150A	PHYSICS	130	Haesoon Chang
A12	T	0710-0830P	OLSON	105	Steven Gralinski
A13	R	0610-0730P	WELLMN	115	Lovely Jain
A14	R	0610-0730P	WELLMN	25	Haoqian Miao
A15	M	0610-0730P	OLSON	267	Jiahui Wei
A16	M	0540-700P	CHSL	60	Melody Malek
A17	F	0310-0430P	OLSON	267	Melody Malek

*If the location of the table above is different from the MyUcdavis/Schedule Builder, just follow the Schedule Builder.

		Date of score releasing	Content
Discussion 1	Quiz 1	Sat Oct 9th	Structure of Organic Molecules I: Structural Formulae and Resonance
Discussion 2	Quiz 2	Sat Oct 16th	Structure of Organic Molecules II: Hybridization
Discussion 3	Quiz 3	Sat Oct 23rd	Nomenclature of Organic Molecules: Alkanes, Cycloalkanes, and Haloalkanes
Discussion 4	Quiz 4	Sat Oct 30th	Stereoisomerism
Discussion 5	Quiz 5	Sat Nov 6th	Introduction to Spectroscopy I: Infrared Spectroscopy
Discussion 6	Quiz 6	Sat Nov 13th	Introduction to Spectroscopy II: Basic Principles of NMR
Discussion 7	Quiz 7	Sat Nov 20th	Introduction to Spectroscopy III: Further Principles of NMR
Discussion 8	Quiz 8	Sat Dec 4th	Introduction to Spectroscopy IV: Approaching Spectroscopy Problems
Discussion 9	No quiz	NA	Approaching Synthesis Problems + TA Review

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1	Sep 20th	Sep 21st	Sep 22nd	Sep 23rd	Sep 24th	Sep 25th
	Quarter Starts		Discussion 1	Discussion 1	Discussion 1	
Week 2	Sep 27th	Sep 28th	Sep 29th	Sep 30th	Oct 1st	Oct 2nd
	Discussion 1	Discussion 1	Discussion 2	Discussion 2	Discussion 2	
			Quiz 1	Quiz 1	Quiz 1	
Week 3	Oct 4th	Oct 5th	Oct 6th	Oct 7th	Oct 8th	Oct 9th
	Discussion 2	Discussion 2	Discussion 3	Discussion 3	Discussion 3	
	Quiz 1	Quiz 1	Quiz 2	Quiz 2	Quiz 2	Quiz 1 score release
Week 4	Oct 11th	Oct 12th	Oct 13th	Oct 14th	Oct 15th	Oct 16th
	Discussion 3	Discussion 3	Discussion 4	Discussion 4	Discussion 4	
	Quiz 2	Quiz 2	Quiz 3	Quiz 3	Quiz 3	Quiz 2 score release
Week 5	Oct 18th	Oct 19th	Oct 20th	Oct 21st	Oct 22nd	Oct 23rd
	Discussion 4	Discussion 4	Discussion 5	Discussion 5	Discussion 5	
	Quiz 3	Quiz 3	Quiz 4	Quiz 4	Quiz 4	Quiz 3 score release
Week 6	Oct 25th	Oct 26th	Oct 27th	Oct 28th	Oct 29th	Oct 30th
	Discussion 5	Discussion 5	Discussion 6	Discussion 6	Discussion 6	
	Quiz 4	Quiz 4	Quiz 5	Quiz 5	Quiz 5	Quiz 4 score release
Week 7	Nov 1st	Nov 2nd	Nov 3rd	Nov 4th	Nov 5th	Nov 6th
	Discussion 6	Discussion 6	Discussion 7	Discussion 7	Discussion 7	
	Quiz 5	Quiz 5	Quiz 6	Quiz 6	Quiz 6	Quiz 5 score release
Week 8	Nov 8th	Nov 9th	Nov 10th	Nov 11th	Nov 12th	Nov 13th
	Discussion 7	Discussion 7	Discussion 8	Holiday	Discussion 8	
	Quiz 6	Quiz 6	Quiz 7	Holiday	Quiz 7	Quiz 6 score release
Week 9	Nov 15th	Nov 16th	Nov 17th	Nov 18th	Nov 19th	Nov 20th
	Discussion 8	Discussion 8	Discussion 9	Discussion 8	Discussion 9	
	Quiz 7	Quiz 7	Quiz 8	Quiz 7	Quiz 8	Quiz 7 score release
Week 10	Nov 22nd	Nov 23rd	Nov 24th	Nov 25th	Nov 26th	Nov 27th
				Holiday	Holiday	
				Holiday	Holiday	
Week 11	Nov 29th	Nov 30th	Dec 1st	Dec 2nd	Dec 3rd	Dec 4th
	Discussion 9	Discussion 9		Discussion 9	Instruction	
	Quiz 8	Quiz 8		Quiz 8	Ends	Quiz 8 score release
Week 12	Dec 6th	Dec 7th	Dec 8th	Dec 9th	Dec 10th	
	Final				Quarter Ends	

Suggested End-of-Chapter Problems for practice and study from the textbook

Please Note:

1. Most (if not all) mid-chapter Exercises should be attempted for drill purposes.
2. You are strongly advised to get a study group together and meet regularly. There is one Team Problem at the end of every chapter designed to help you work with chapter concepts as a group.
3. Use the Chapter Integration Problem in each chapter to help you prepare to do the Problems.

If a topic is not discussed in lecture or in the laboratory/discussion sessions, and no Problems are assigned concerning it, you can assume it will NOT appear on the exams.

CHAPTER 1
25-38, 42, 45, 50

CHAPTER 2
31-32, 34-50, 64-65

CHAPTER 3
15-23, 19-23, 27-30, 36-37

CHAPTER 4
22-27, 31, 34, 36, 40, 44

CHAPTER 5 31-33, 36-37, 39, 41

CHAPTER 6
30-32, 36-50, 56-60

CHAPTER 7
25, 27-43, 49-50, 53

CHAPTER 8
24-28, 30-48, 51-54

CHAPTER 9
32-50, 56-60, 66-67

CHAPTER 10
31-53, 45-51, 53-54, 58

CHAPTER 11
38-39, 57-59, 59, 61