

Course Outline
Chemistry 118A, Summer 2019
Organic Chemistry for Health and Life Sciences
Lecture: TWR 8-9:40am, 179 Chem

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

Office hours: Tuesday, Wednesday 9:50-10:50 am., Room 310 Chemistry

TA: Julia Jennings (jjennings@ucdavis.edu) Office hours: Tuesday, Thursday 12-2pm Storer Hall, room 0335 in the basement

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: available from the Bookstore

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 and spectroscopy and 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 July 11 (50 min.)	Chapters 1–4	20% pts
Midterm 2- Thursday July 25 (50 min.)	Chapters 5–7 & Sections 11.8-11.11	20% pts
Final Exam: Thursday August 1(100 min.)	Chapters 1–10 & Sections 11-8-11	40% pts
Lab/discussion quizzes		20% pts
Total		100%

Grades:

100-83% A⁺ - A⁻ 82.99-68% B⁺ - B⁻ 67.99-53 C⁺ - C⁻ 52.99-40% D⁺ - D⁻

- (1) Exam grading is determined by absolute quality of work. 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!

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