

CHM 2200 – Fundamentals of Organic Chemistry (3 credit hours)
Fall 2024: MWF 2nd (8:30-9:20), SFH 221, class #28327

<i>Instructor</i>	<i>Email/Office/Phone</i>	<i>Student Hours</i>
Dr. Martina Sumner Associate Instructional Professor I value your input regarding making this course more accessible and inclusive. Please reach out with suggestions.	Email in Canvas preferred m.sumner@chem.ufl.edu 352-392-0517 Leigh Hall 404	MWF 10:35 to 11:25 am, MW 12:30 to 1:30, All student hours will meet in 308 Leigh Hall I welcome you to contact me outside of class and student hours. You may email me via canvas and/or see me before or after class.

Course Description: This is an elementary one semester organic chemistry course that will expose students to the more important aspects of organic chemistry. The course is intended for people in programs requiring only one semester of organic chemistry. It is not appropriate for chemistry majors or pre-professional students who require two semesters of organic chemistry.

Prerequisites: A passing grade in the final semester of general chemistry (CHM 2046 or its equivalent) is a prerequisite for this course. This course, CHM 2200, is not a prerequisite for CHM 2210 (the first semester of the 2 semester organic sequence), nor does it permit a student to go directly to CHM 2211 (the second semester of the 2 semester organic sequence).

Text: W.H. Brown, "Introduction to Organic Chemistry, 5th Edition," John Wiley and Sons (2014)
W.H. Brown, "Student Solutions Manual for Introduction to Organic Chemistry, 5th Edition," John Wiley and Sons (2014)

Exams: Exams in this course will reflect (and sometimes be identical to) the problems given in the text. There will be three progress exams given on the following dates during the term:

Progress Exam 1 – Monday, September 16 (ch 1-4)
Progress Exam 2 – Friday, October 11 (ch 5-7)
Progress Exam 3 – Friday, November 8 (ch 8-10)

Exams will be given only at the scheduled times. **There will be no makeup exams given in this course.** Students who miss an exam due to extreme, unusual circumstances (serious illness requiring doctor's attention, death in the family, etc.) may request that their final exam score be used to replace the missed progress exam. This option is only available **if I am notified within 24 hours of missing the exam and if proper documentation (doctor's excuse, funeral program, etc.) is provided.** Please note that inadequate preparation because of other academic or extracurricular obligations is not considered to be a viable excuse for special consideration. **Note:** Any student who anticipates an exam conflict due to religious observance or University-sponsored business should contact the instructor at least one week prior to the exam to arrange for an early exam.

Final Exam: The final exam for this course is scheduled on Wednesday, December 12th from 10:00-12:00 PM in SFH 221. The final exam will be cumulative and will cover ideas presented throughout the semester.

Grading Information: Every student has a bad day from time to time. Therefore, this course is designed to allow you to make some mistakes along the way without your grade plummeting. Before final grades are calculated, the average of your three progress exams will be used to substitute for your lowest progress exam score. Please note that any exam that is not attempted will be recorded as a grade of zero. This being said, you should take each exam seriously, and do your best. Grades are calculated based on three progress exam scores, worth 100 points each, plus the final exam, also worth 100 points, for a total of 400 points available in this course. There will not be a curve beyond that already included within the grading scale. UF policies for assigning grade points can be found on the Registrar's webpage.

Grade scale (note: there is no rounding to your score in Canvas):

Letter	A	A-	B+	B	B-	C+	C	D+	D	D-	E
Cutoff	90.0	87.0	84.0	77.0	73.0	70.0	63.0	60.0	57.0	50.0	< 50.0

Attendance and Lecture Etiquette: You should plan to arrive at class on time and attend all lectures. Although attendance will not be taken, you'll find it is easier to keep up with the course if you are attending lecture regularly. You'll also find that you will do better if you are actively engaged in the classroom. Please no personal electronics or texting during the lecture – it is distracting for your classmates and disrespectful to your instructor.

Review Problems and Tentative Schedule: In order to be successful in this course, you must be able to apply what you have learned to new situations. The best way to acquire this skill is to work review problems every day. A lot of problems. The more problems you attempt, the more you will learn. All of the study problems contained within the main text of the chapter should be worked. Furthermore, it is strongly recommended that you take the "Quick Quiz" at the end of the chapter, and then start working the "Problems". Do as many as you can...try at least three or four problems in each section. (A great way to study is to do the odd numbered problems as we move through the chapter, then go back and do the even numbered ones as a way to review for the exams.) Answers and explanations for the problems can be found in the Solutions Manual. Additional help with the problems can be obtained during office hours. Please note that homework will not be collected or graded. The course will cover chapters 1-10 and 12-14, and the schedule below will be followed as closely as possible:

DAILY COURSE SCHEDULE: the lecture schedule is tentative, but exam dates will not change

Week	Class date	Reading	Topic	Brown and Poon
1	Fri 8/23	Syllabus and ch. 1.1-4	Electron configuration, Lewis structures, VSEPR, VB, MO	Ch. 1
2	Mon 8/26	Ch 1.5-7	Organic functional groups	Ch. 1
	Wed 8/28	Ch 2.1-4 Acids and Bases	Review of acids/bases	Ch. 2
	Fri 8/30	Ch 2.5-6	Relationship between structure and acidity	Ch. 2

3	Mon 9/2	HOLIDAY – no class		
	Wed 9/4	Ch 3.1-4 alkanes and cycloalkanes	Naming and drawing alkanes and cycloalkanes	Ch 3
	Fri 9/6	Ch 3.5-7	Conformations, cis/trans isomers	Ch. 3
4	Mon 9/9	Ch 3.8-10	Phys properties, reactions of...	Ch. 3
	Wed 9/11	Ch 4.1-2 alkenes and alkynes	Naming and structures of alkenes and alkynes	Ch. 4
	Fri 9/13	Ch 4.3-4	Phys properties and acidity of alkynes	Ch. 4
5	Mon 9/16	EXAM 1 (ch 1 – 4)		Ch. 1-4
	Wed 9/18	Ch 5.1-3 Reactions of alkenes and alkynes	Reaction mechanism, electrophilic additions to alkenes	Ch. 5
	Fri 9/20	Ch 5.4-5	Carbocation and hydroboration-oxidation	Ch. 5
6	Mon 9/23	Ch 5.6-8	Reduction, acetylide ion, alkynes	Ch. 5
	Wed 9/25	Ch 5		Ch. 6
	Fri 9/27	Ch 6 Chirality: the handedness of molecules	Stereoisomers, enantiomers	Ch. 6
7	Mon 9/30	Ch 6		Ch. 6
	Wed 10/2	Ch 7.1-3 Haloalkanes	Haloalkanes naming and characteristics	Ch. 7
	Fri 10/4	Ch 7.4-6	SN2, SN1 mechanisms	Ch. 7
8	Mon 10/7	Ch 7.7-9	E1 and E2 mechanisms	Ch. 7
	Wed 10/9	Ch 7 or review		Ch. 7
	Fri 10/11	Exam 2 (ch 5-7)		Ch. 5-7
9	Mon 10/14	Ch 8.1-2 Alcohols, Ethers, and thiols	Naming and structures of alcohols, reactions of alcohols	Ch. 8
	Wed 10/16	Ch 8.3-5	Ethers, epoxides, thiols	Ch. 8
	Fri 10/18	Homecoming - no class		
10	Mon 10/21	Ch 8.6	Reactions of thiols	Ch. 8
	Wed 10/23	Ch 9.1-4 Benzene and its derivatives	Naming and structures, phys properties	Ch. 9
	Fri 10/25	Ch 9.5-7	Electrophilic aromatic substitution	Ch. 9
11	Mon 10/28	Ch 9.8-9	Phenols	Ch. 9
	Wed 10/30	Ch 9 and review		Ch. 9
	Fri 11/1	Ch 10.1-3 Amines	Naming and phys properties of amines	Ch. 10
12	Mon 11/4	Ch 10.4-5	Reactions and acid-base properties	Ch. 10
	Wed 11/6	Ch 10.6-7	Arylamines, and amines act as Nuc	Ch. 10
	Fri 11/8	Exam 3		Ch. 8-10
13	Mon 11/11	Veterans Day - no class		

	Wed 11/13	Ch 12.1-5 aldehydes and ketones	Naming and phys properties and Grignard reagents	Ch 12
	Fri 11/15	Ch 12.6-7	Hemiacetals and acetals	Ch 12
14	Mon 11/18	Ch 12.8-10	Keto-enol tautomerism, oxidation and reduction	Ch. 12
	Wed 11/20	Ch 13.1-4 Carboxylic acids	Naming and phys properties, acid-base	Ch. 13
	Fri 11/22	Ch 13.5-8	Reactions of COOH	Ch 13
	11/25 - 11/29	Thanksgiving week - no class		
15	Mon 12/2	Ch 14.1-4 Functional derivatives of carboxylic acids	Reactions of COOH, hydrolysis	Ch 14
	Wed 12/4	Ch 14.5-8	COOH derivatives react with ammonia and amines	Ch. 14
	Thursday, Dec. 12	Final exam (10 to 12 pm)		cumulative

*The topics that will be covered from each chapter will be selective and announced on canvas via an announcement.

Holidays (no classes): Monday, September 2 (Labor Day), Friday, October 18 (Homecoming); Monday, November 11 (Veterans Day), Thanksgiving break (Nov. 25- 29)

Honor Code: The following statements taken from the University of Florida Honor Code apply to all work in this course.

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

On my honor, I have neither given nor received unauthorized aid in doing this assignment.

Special Needs: Any student with a special need for an accommodation in test-taking or note-taking should register with the Dean of Students Office. That office will provide the student with documentation for presentation to the instructor. Anyone anticipating the need for special accommodation should speak with the instructor early in the semester.

Good luck, and don't be afraid to ask for help if you need it!!