Organic Chemistry/Biochemistry I

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Course Description	This is an accelerated one-semester online course focused on an overview of the structure, properties, and reactions of organic compounds, including biomolecules and polymers. <u>The prerequisites</u> for this course are CHM 2046 or CHM2047 or CHM2051 and CHM 2046L, or the equivalent.	
Text & Materials	"Organic Chemistry with Biological Topics, 6th edition" by Smith. ISBN10: 1260516393 ISBN13: 9781260516395. <u>We are using the "Connect" version</u> which includes an e-book, guided study, homework problems and short video clips. You can get there from our CANVAS page. I will also post powerpoint files for you.	
	<u>I recommend</u> you purchase molecular models, a nice kit from Darling models can be found <u>here</u> ; kit #1; ~\$25.75 Models really help- get some; any brand you find, new or used will do.	
Web	The course CANVAS website is found here: https://ufl.instructure.com/courses/422675	
Lecture	T,R Period 3 - 4 (9:35 AM - 11:30 PM) <u>The course will be real-time</u> via Zoom sessions Plan to attend all lectures. Quizzes and exams draw from lecture material and discussions we have in class!	
Office Hours	T 12:00 PM -2 PM; W 10-11 AM, 1-2 PM, and by appointment. If you have never used office hours, it is a chance for you to get expert tutoring and help with the material. Students who use office hours do better! Our course TA, Haoxi Li will post his office hours and Zoom link on CANVAS. We will use our class zoom link for office hours.	
Readings	Part of your course grade (10 %) will be based on whether you have completed assigned readings prior to the class in which the content is presented/discussed. These readings are assigned on our Canvas course page. You simply have to read and work through the material, before the deadline to get full credit! This will typically involve spending 45-90 minutes for each chapter. The deadline is the day of class at 9:35 AM, for example, the chapter 3 readings should be completed by 9:35 AM on the day we cover chapter 3.	
	The grading of readings: There are 24 readings. You need to complete 20, on time, for full credit (40 points maximum). You lose 2 points for every late assignment (beyond the grace of 4 readings). Example: you complete 18 readings on time, and earn $18*2 = 36$ points for readings. Second example: you complete 24 readings on time. Good job and effort, full credit (40 points). Third example: you complete 4 readings on time, and earn $4 \times 2 = 8$ points. Easy points and a reward for keeping up with the material!	
Homework	The Connect environment provides you with multiple ways to learn . Keep up and <u>work the material daily</u> . Work the problems found in your text! They will not be graded, but working these problems will greatly facilitate your understanding of the	

CHM 3217 section 11014 Organic Chemistry/Biochemistry I

Spring 2021

course material. (See "How to do well", below) Contact me or Haoxi and we will help you with the material.

Quizzes & Exams There will be 3 quizzes (30 points each) and 2 exams (100 points each), and a final exam, 100 points. Quizzes should be easy for you if you are keeping up with the work! Your lowest quiz grade will be dropped in calculating your grade, which will be based on a total of 400 possible course points (40 readings + 60 quiz + 300 exams). There are no makeups for missed quizzes- you can drop the missed quiz. Make-up exams will only be granted for absences consistent with UF policy. Military service, UF teams, religious observation, serious illness, etc. Documentation will be required! Please contact me in advance about a pending absence and no matter what contact me within one day after an unanticipated absence.

Grades/Grading The following grading scale will apply $A \ge 90\%$, A = 87-89.9%, B = 84-86.9%, B = 77-83.9%, B = 73-76.9%, C = 70-72.9%, C = 63-69.9%, C = 60-62.9%, D = 55-59.9%, D = 50-56.9%, E < 50% This scale includes a curve. The letter grade of A reflects exemplary work.

How to do well! Organic chemistry is best learned through practice.. Like a language, musical instrument, or anything that is new and challenging. That said- orgo has gotten a bad rep...it is not that hard if you follow the program!! I cannot overemphasize how important it is to work as many problems as you can. Save any tough ones (showing your work) for me or a TA to look at and we will help you learn how to figure it out! *Active learning* is the name of the game: The active learner practices what they want to learn. Regular study times eg 2 hours per day help reinforce the learning process. Cramming is temporary learning and unless you have a photographic memory....it does not work well. Structure your study time.

We live in an unusual and challenging time with Covid. It is important to reach out electronically to maintain contact and get the help you need. Form/join Zoom chatrooms with classmates and make physically distanced study groups. Let me know if I can help you in your studies.

The Honor Pledge:

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

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."

Chapter	New Topic Area
Course intro/Ch 1	Structure & Bonding
Ch 2	Polar covalent bonds; Acids/Bases
Ch 3	Intro to Organic Molecules and Functional Groups
Ch 4	Alkanes
Ch 5	Stereochemistry
Ch 5/Ch 6	Understanding organic reactions
Ch 6	
Ch 7	Alkyl Halides & Substitution
Ch 8	Alkyl Halides & Elimination
Ch 9	Alcohols, Ethers and Related Compounds
Ch 10	Alkenes and Alkynes (Alkynes a fun!)
Test 1 Chapters 1-9	
Ch 11	Reductions & Oxidations
Ch 12	Conjugation, Resonance & Dienes
Ch 13	Intro to Carbonyl Chemistry
Ch 14	Aldehydes and Ketones
Ch 15	Carboxylic Acids & Nitriles
Ch 16	Carboxylic Acids & Derivatives
Ch 17	Substitution Reactions at the α -Carbon
Ch 18	Carbonyl Condensation Reactions
Ch 19	Benzene & Aromatic Compounds
Ch 20	Reactions of Aromatic Compounds
Test 2 Chapters 10-19	
Ch 21	Radical Reactions
Ch 22	Amines
Mass Spectrometry	Mass Spectrometry
NMR	NMR
Polymers	
Course review	
Final Exam: @ 7:30 AM - 9:3	30 AM (Emphasis on Chapters 20 \rightarrow NMR)
	Chapter Course intro/Ch 1 Ch 2 Ch 3 Ch 4 Ch 5 Ch 5/Ch 6 Ch 7 Ch 8 Ch 9 Ch 10 Test 1 Chapter Ch 13 Ch 14 Ch 15 Ch 16 Ch 17 Ch 18 Ch 19 Ch 20 Test 2 Chapter Ch 21 Ch 22 Mass Spectrometry NMR Polymers Course review Final Exam: @ 7:30 AM - 9:

Approximate	Semester Schedule (eac	th date represents 2 class meetings!)
Date(s)	Chapter	New Topic Area

CHM 3217 section 11014 Organic Chemistry/Biochemistry I

Campus Resources

The Counseling & Wellness Center

Provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, <u>www.counseling.ufl.edu/cwc/</u>

Services for Students with Disabilities

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation

www.dso.ufl.edu/drc/

Disability Resource Center 352-392-8565, 001 Reid Hall (Located 1/8 mi. north of the intersection of SW 13th Street & Museum Road)

Online Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. <u>Click here for guidance on how to give feedback in a professional and respectful manner</u>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <u>ufl.bluera.com/ufl/</u>. <u>Summaries of course evaluation results are available to students here</u>.