

Dr. Nicole Horenstein, Leigh 402,
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Office Hours: T 3:00-4:30 PM; W 1-2 PM. Th 1-2
Attendance at office hours is strongly encouraged!

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| Course Description | This is an accelerated one-semester course focused on an overview of the structure, properties, and reactions of organic compounds, including biomolecules and polymers. This is the first half of a two-semester sequence in biochemistry. <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 Applications, 3 rd edition” by John McMurry. Also get the accompanying Study Guide and Solutions Manual! <u>I recommend</u> you purchase molecular models www.darlingmodels.com ; kit #1; \$25.00 or https://duluthlabs.com/collections/molecular-sets/products/mm-005-organic-chemistry-molecular-student-set , \$29.00. Each type of model has strengths and weaknesses but any model is better than no model, so you need not feel you must purchase one of the two I suggested. |
| Lecture | T, Th, periods 2-3 (8:30-10:25) Leigh Hall, room 207. Please plan to attend all lectures; quizzes and exams draw from lecture material and discussions we have in class! We have a short break after the first hour in which you can reconnect to the outside world and stretch, so please be polite and do not text, etc, during lecture. |
| Attendance | I do not record attendance, but if you want to succeed, coming to lecture is a good idea. See UF policy: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx |
| Exams | There will be 5 quizzes (25 points each) and 2 exams (100 points each). Your lowest quiz grade will be dropped in calculating your grade, which will be based on a total of 300 possible course points. There are no makeup exams for missed quizzes. Make-up exams will only be granted for absences consistent with UF policy. Military service, UF teams, serious illness, etc. Documentation will be required. Please contact me if you know in advance about a pending absence and no matter what contact me within one day of an unanticipated absence. No makeups are offered for a missed quiz- you can drop the missed quiz. |
| Grades/Grading | The following grading scale will apply (Equal to or above: 92=A; 90=A-; 86=B+; 81=B; 79=B-; 76=C+; 71=C; 69=C-; 65=D+; 61=D; 59=D-) The letter grade of A reflects exemplary work. Exams may be photocopied to ensure academic honesty. Regrades require an explanatory note on the cover from you, and the entire exam will be regraded for accuracy. In some cases exams may be curved. |
| Homework | Work the problems found in your book! They will not be graded, but working these problems will greatly facilitate your understanding of the course material. (See “How to do well”, below) Come in to see me or your TAs and we will help you with the material. |
| How to do well! | Organic chemistry is best learned through practice! (Like a language) 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! <u>Active learning</u> is the name of the game, and just |

attending lecture and reading your text is a good start, but not enough. The active learner practices what they are learning, and when it is show-time, (e.g. a quiz or exam) you are ready!

"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."

Approximate Semester Schedule (each date represents 2 class meetings!)

| Date(s) | Chapter/Activity | Topic Area |
|----------------|-------------------------------------|---|
| 8/22 | Ch 1 lecture | Structure & Bonding |
| 8/24 | Ch 1 & 2 lecture | Polar covalent bonds; Acids/Bases |
| 8/29 | Ch 2 lecture | |
| 8/31 | Quiz 1 , Ch 3 lecture | Organic Compounds: Alkanes & Stereochemistry |
| 9/5 | Ch 3 & 4 lecture | Organic Compounds: Cycloalkanes & Stereochemistry |
| 9/7 | Ch 4 lecture | |
| 9/12 | Ch 5 | Stereochemistry at Tetrahedral Centers |
| 9/14 | Ch 5, Ch 6., | An overview of Organic Reactions |
| 9/19 | Ch 6, Ch 7 Quiz 2 | Alkenes and Alkynes |
| 9/21 | Ch 7 lecture | |
| 9/26 | Ch 8 lecture | Reactions of Alkenes and alkynes |
| 9/28 | Ch 8 lecture | |
| 10/3 | Ch 9 lecture | Aromatic Compounds |
| 10/5 | Ch 9 lecture Quiz 3 | |
| 10/10 | Ch 10 lecture | Structure Determination: Mass Spec and IR Spectroscopy |
| 10/12 | Exam 1 (1-9) , Ch 11 lecture | Structure Determination: Nuclear Magnetic Resonance |
| 10/17 | Ch 12 lecture | Organohalides: Nucleophilic substitutions and eliminations |
| 10/19 | Ch 12 & 13 lecture | Alcohols, Phenols and Thiols: Ethers and Sulfides |
| 10/24 | Ch 13 lecture | |
| 10/26 | Quiz 4 , Ch 14 lecture | Aldehydes and Ketones: Nucleophilic addition Reactions |
| 10/31 | Ch 14 lecture, Ch 15 lecture | |
| 11/2 | Ch 15 lecture | Carboxylic Acids & Nitriles |
| 11/7 | Ch 16 lecture | Carboxylic acid derivatives: Nucleophilic acyl substitution |
| 11/9 | Ch 16, Ch 17 lecture | Carbonyl α -substitution and Condensation Reactions |
| 11/14 | Ch 17 lecture | |
| 11/16 | Quiz 5 , Ch 18 lecture | Amines and Heterocycles |
| 11/21 | Ch 18 lecture | |
| 11/23 | <i>Thanksgiving break, No Class</i> | |
| 11/28 | (Readings to be assigned) | Polymer Chemistry |
| 11/30 | Polymers, Mega-review! | |
| 12/5 | Exam 2 covers chapters 1-18 | |

TAs: Alican Gulsevin agulsevin@chem.ufl.edu; also Organic Chemistry Learning Center in Flint 258