

CHM 3217 – Organic Chemistry/Biochemistry 1 (Section 10870 – 4 credit hours)
Spring 2022: TR 3-4 (9:35-11:30am) in CCB 221

Instructor: Dr. Tammy A. Davidson, davidson@chem.ufl.edu, Sisler 429B
Please use Canvas or your official UF email for any correspondence

Teaching Assistant: Haoxi Li, hl2500@chem.ufl.edu

Office Hours: Dr. Davidson: Tuesdays and Thursdays, 11:45am-1:00pm in Sisler 429
Haoxi Li: Wednesdays and Fridays, 3:30-4:45pm in Leigh 400

Course Description and Prerequisites: This course is a rigorous, one-semester overview of the structure, properties, and reactions of organic compounds, and is equivalent to taking the CHM2210/2211 sequence. This is the first half of the CHM3217/3218 sequence – CHM3217 is the organic chemistry component, whereas CHM3218 is the biochemistry portion. The prerequisites 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 Janice Smith. This course is participating in UF All Access, the least expensive and fastest way to get access to your course materials for the semester. Please visit <https://www.bsd.ufl.edu/G1C/bookstore/allaccess.asp> to Opt In and purchase your required Connect code [includes your ebook] access and class assignments.

Also recommended: Molecular model kit: see <http://www.darlingmodels.com> (Kit #1 suggested, approx. \$25)

Canvas Site: <http://elearning.ufl.edu>. Login with Gatorlink ID and password. This site will be updated periodically with announcements, lecture notes, practice materials, exam scores, and other information. You will also access the McGraw-Hill Connect site from the link in Canvas in order to access online homework assignments.

ALEKS Prep: www.aleks.com. We are utilizing a new online platform, **ALEKS Prep for Organic Chemistry**, to help you gear up for your Spring 2022 organic class. The ALEKS Prep course is designed to evaluate your current understanding of various topics from General Chemistry and the first few chapters of organic material and then to provide targeted instruction to fill in the gaps. Our goal is for everyone to be ready to hit the ground running on the first day of class, which is why we are asking you to complete the ALEKS Prep course. **Students will earn 5% of their grade in the course by completing the ALEKS Prep course by January 31, 2022.** Scores will be prorated based on the level of completion by the due date.

Attendance and Lecture Etiquette: This is a fast paced, 4-credit course. You should plan to arrive at class on time and attend all lectures – you will find it is easier to keep up if you are attending lecture regularly. You will also find that you will do better if you are actively engaged in the classroom. Please no personal electronics or texting during the lecture. We will have a short break after the first hour for you to reconnect.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Course Communication Policy: We will use the Announcements page in Canvas to post information that is relevant to the class as a whole. Please be sure to check the Canvas announcements regularly for updates. Please use the Canvas email tool or your official UF email for all correspondence. We cannot discuss grading or any other course related issues via external email. We will do our best to respond to emails within 24 hours during the work week (Monday-Friday). You should not expect a reply to any email sent after 5pm or over the weekend (or on a holiday) until the next business day.

All students are expected to treat their classmates and instructors with respect, and to follow netiquette guidelines during meetings, Zoom chats, messaging, and emails. For more information, please see the Netiquette Guide on our Canvas site.

Quizzes and Progress Exams: Five quizzes and two progress exams will be given on the following dates during the semester:

Quizzes: January 20, February 3, February 17, March 24, and April 7

Progress Exams: March 3 (during class class) and April 29 (12:30-2:30pm)

Quizzes and Progress Exams will be given only at the scheduled times. There will be no makeup quizzes 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.) need to contact the instructor **within 24 hours of missing the exam to discuss their makeup options, and also need to provide proper documentation (doctor's excuse, funeral program, etc.) for the absence.** Please note that inadequate preparation because of other academic or extracurricular obligations is not considered to be a viable excuse for special consideration.

Grading Information: Grades will be calculated using your best four quiz scores (the lowest of the five will be dropped), your midterm and final exam scores, your ALEKS Prep completion, and your completion of the Connect assignments. Grades will be calculated the weighting below:

<u>Item</u>	<u>Weighting</u>
ALEKS Prep	5%
Connect Assignments	20%
Quizzes	25%
Midterm and Final Exam	50%

Final grades in the course will be assigned using the following grading scale: A \geq 90.0%, A- = 87.0-89.9%, B+ = 84.0-86.9%, B = 77.0-83.9%, B- = 73.0-76.9%, C+ = 70.0-72.9%, C = 63.0-69.9%, C- = 60.0-62.9%, D+ = 57.0-59.9%, D = 50.0-56.9%, E < 50.0%. There will not be a curve beyond that already included within the grading scale.

UF grading policies are provided at <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>.

Course Schedule: The course will cover chapters 1 through 22, with roughly 1 lecture day (2 class periods) per chapter. The schedule below will be followed as closely as possible.

Dates	Reading/Activity	Topics
January 6	Ch. 1, 2	Structure and Bonding, Acids and Bases
January 11	Ch. 2, 3	Organic Molecules and Functional Groups
January 13	Ch. 4	Alkanes
January 18	Ch. 4, 6	Understanding Organic Reactions
January 20	Quiz 1 , Ch. 5	Stereochemistry
January 25	Ch. 5	Stereochemistry
January 27	Ch. 7	Alkyl Halides and Nucleophilic Substitution
February 1	Ch. 8	Alkyl Halides and Elimination Reactions
February 3	Quiz 2 , Ch. 8	Alkyl Halides and Elimination Reactions
February 8	Ch. 9	Alcohols, Ethers, and Related Compounds
February 10	Ch. 9, 10	Alkenes and Alkynes
February 15	Ch. 10	Alkenes and Alkynes
February 17	Quiz 3 , Ch. 11	Oxidation and Reduction
February 22	Spectroscopy B and C	IR Spectroscopy
February 24	Ch. 12	NMR Spectroscopy
March 1	Ch. 12	Conjugation, Resonance, and Dienes
March 3	Progress Exam 1	Chapters 1-12 and Spectroscopy B and C
March 8 and 10	Spring Break – no classes	

Dates	Reading/Activity	Topics
March 15	Ch. 13	Introduction to Carbonyl Chemistry
March 17	Ch. 14	Aldehydes and Ketones
March 22	Ch. 14	Aldehydes and Ketones
March 24	Quiz 4 , Ch. 15	Carboxylic Acids and Nitriles
March 29	Ch. 16	Carboxylic Acids and Their Derivatives
March 31	Ch. 17	Substitution Reactions of Carbonyl Compounds
April 5	Ch. 18	Carbonyl Condensation Reactions
April 7	Quiz 5 , Ch. 19	Benzene and Aromatic Compounds
April 12	Ch. 20	Reactions of Aromatic Compounds
April 14	Ch. 21	Radical Reactions
April 19	Ch. 22	Amines
April 29	Final Exam	Chapters 1-22 (Note: exam is 12:30-2:30pm in CCB 221)

Plan for Success, or Who's "Brilliant" Idea Was It for Me to Take Organic Chemistry, Anyway? Good question! What is the problem with organic chemistry that causes students to view the course with so much anxiety? Maybe you've heard comments from students who have recently finished the course. Something like: "You have to memorize five gazillion reactions, and then they don't even ask you the ones you've had in class on the exams!" Everybody has heard the stories of memorizing, and to be honest, there is some truth to it. You *will* have to memorize some things, but you shouldn't try to memorize everything - what a waste of time! Instead, you will need to learn some basic properties of atoms and molecules, principles that describe how and why reactions take place, and a number of reaction types that can later be generalized to include the various reactions of organic compounds that you will encounter throughout the course. You'll be expected to learn about and *really understand* the ground rules so that you can apply them in a logical way to completely new kinds of situations, and come up with sensible answers. **Note:** This course is cumulative by nature – the ideas and concepts you learn in Chapter 1 will still be important when we get to Chapter 22, and as you advance into Biochemistry. Do your best to really understand the fundamentals and it will make your experience with organic chemistry better, and maybe even fun.

So what is the secret? Actually, there is nothing secret about it. You'll need to be ready to work hard and develop a good study plan. Cramming a day or two before the exam does not work for this course. At the very least, do something for this class every day (OK, maybe you can skip one day a week), maybe even an hour or two each day. Ideally, you should read ahead before class, you should go over your notes as soon as possible after class to fill in missing information, and every day you should work problems. Lots and lots of problems. In chapter problems, end of chapter problems, problems you make up for each other. Do as many as you can – really do them – and come ask for help when you are confused. This book has great practice problems and you should use them to your advantage. I will also be posting reading and homework assignments in McGraw-Hill Connect for each chapter to make sure you are keeping up with the material. Additional help with the problems can be obtained during office hours and in the OCLC in Hernandez Hall.

Organic Chemistry Learning Center: In addition to Dr. Davidson and Haoxi's office hours, teaching assistants will be available in the Organic Chemistry Learning Center (OCLC) in CCB 205, Monday through Friday. The daily schedule will be posted on the Canvas site. Please take advantage of these office hours – we are here to help you learn as much as you can.

Academic Honesty Guidelines: The University of Florida holds its students to the highest standards, and we encourage students to read the University of Florida Student Honor Code and Student Conduct Code (Regulation 4.040), so they are aware of our standards. Any violation of the Student Honor Code will result in a referral the Student Conduct and Conflict Resolution and may result in academic sanctions and further student conduct action. The two greatest threats to the academic integrity of the University of Florida are cheating and plagiarism. Students should be aware of their faculty's policy on collaboration, should understand how to properly cite sources, and should not give nor receive an improper academic advantage in any manner through any medium. You can find more information about UF's Academic Honesty Policy from the Dean of Students Office website at <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>.

Accommodations: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <http://www.dso.ufl.edu/drc/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester. Note that DRC accommodations cannot be applied retroactively.

Evaluations: Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. 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 <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

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