Syllabus – Spring 2021

CHM2210 – Organic Chemistry I

Instructors: Dr. Laura Peterson and Dr. Stefanie Habenicht

Sections: O212(28426), O213(28427) and O214(28428)

Contact: Canvas message only (how-to)

Allow up to 48 hours for a response, not counting weekends.

Course Information

Course Description: The first half of the CHM 2210/2211 sequence, intended for majors and pre-professional students. A study of the structures, syntheses, and reactions of organic compounds.

Prerequisites: CHM 2046 or CHM 2096 or CHM 2047 or CHM 2051.

Meeting Times: This course is 100% online and asynchronous.

Required:

Textbook: Brown, Iverson, Anslyn and Foote, Organic Chemistry, 8th Edition, eBook with OWLv2 access (Cengage Learning; ISBN: 9781305580350 via UF All Access).

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 the Bookstore All Access Site to opt-in and purchase your required Connect code, which will provide access to the eBook, solutions manual and homework assignments (OWLv2).

ALEKS Prep for Organic Chemistry: 11-week access code (McGraw Hill, ISBN: 9781259664427).

Recommended:

Study Guide: Iverson, Organic Chemistry, Student Study Guide and Solutions Manual, 8th Edition (Cengage Learning, ISBN: 1305864506). This will be included in UF All Access.

Molecular Model Set: A molecular model set is highly recommended. Links to specific modeling kits can be found on the E-Learning website.

Purchasing Options: Please view the course material information.

E-Learning Website: All students will have access to the e-Learning website (Canvas): https://elearning.ufl.edu/. You will login with your GatorLink account username and password. General course information, lecture videos, important announcements, office hours, handouts, exam keys, and practice problems will be posted here. It is your responsibility to check Canvas often to make sure that you do not miss important announcements and to ensure that your gradebook is accurate. For computer assistance, visit http://helpdesk.ufl.edu/.

Computer Requirements: Reliable access to a computer and the internet is required for this online course. A student's computer configuration would ideally include the following, while the items bolded are required for the online proctored exams: Video card capable of showing typical web-based video content (preferably in HD), **speakers and a microphone or headphones with built-in microphone**, **webcam**, broadband connection to the Internet and related equipment (Cable/DSL modem), Microsoft Office 2013 Suite installed (provided by the university) and Adobe Reader (or similar to view PDF documents).

You can find suggested hardware recommendations here: https://ufonline.ufl.edu/resources/computer-requirements/.

Office Hours (*via Zoom)*:

Dr. Peterson: Mondays and Wednesdays 10:40 AM – 11:30 AM
Tuesdays 8:30 AM – 10:25 AM

Dr. Habenicht: Wednesdays and Fridays 1:55 PM – 2:45 PM
Thursdays 10:40 AM – 12:35 AM

Undergraduate TAs' (UGTA) Office Hours: schedule posted to Canvas.

This office hour schedule is subject to change. **All office hours will be held via Zoom Meetings**. Individual links to Zoom office hours will be posted to Canvas.

Assignments and Grading

Your grade will be based on the following items:

Syllabus Quiz	1%	
ALEKS Prep Course:	3%	
OWLv2 Online Homework:	9%	
Four (4) Progress Exams:	68%	(17% each)
Cumulative Final Exam:	19%	
TOTAL:	100%	

Your grade will be calculated based on the following grading scale:

	A: 92-100	**A-**: 90-91.99		
B+: 87-89.99	**B**: 82-86.99	**B-**: 79-81.99		
C+: 75-78.99	**C**: 65-74.99	**C-**: 60-64.99		
D+: 55-59.99	**D**: 50-54.99	**D-**: 45-49.99	**E**: <45	

The instructors reserve the right to change the grading scale at any point during the semester.

Grades will be assigned in accordance with University policy: (https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/).

Syllabus Quiz: An open-syllabus quiz will be given over the first two weeks of class via Canvas quizzes. The quiz will open on the first day of class (1/11/2021) and will be due on 1/24/2021 at 11:59 PM. You will be allowed unlimited attempts and unlimited time on this quiz.

ALEKS: You must complete 100% of the ALEKS Prep course by 1/31/2021 (11:59 PM) to receive full credit for this assignment (3% of the final grade). Students who complete less than 100% by 1/31/2021 will receive zero (0) points, there will be no partial credit for the ALEKS assignment.

OWLv2 Online Homework: Beginning in Week 4 (after the ALEKS Prep course has been completed) homework will be assigned to be completed through OWLv2. The OWLv2 assignments will consist of "Activity/ACT" and "Mastery/MAS" assignments. An ACT assignment must be completed to 80% to gain access to the respective MAS assignment. Each day of lecture (MWF) there will be a corresponding set of ACT and MAS assignments *generally* following the schedule below.

Lecture Day	Assignment Released (12:00 AM)	Assignment Due (11:55 PM)	Assignment accepted with 10% penalty (11:55 PM)
Wednesday	Monday before Wed Lecture	Friday after Wed Lecture	Monday after Wed Lecture
Friday	Wednesday before Fri Lecture	Monday after Fri Lecture	Wednesday after Fri Lecture
Monday	Friday before Mon Lecture	Wednesday after Mon Lecture	Friday after Mon Lecture

Links to access the individual assignments will be posted to Canvas within the module for each week

Progress Exams: There will be four (4) 100-point progress exams administered as quizzes on the e-Learning website (Canvas). These quizzes will be available between 6 PM and 10 PM on exam days. You will have 120 minutes to complete each exam. Progress exams will be cumulative but will emphasize material covered following the previous exam. Exam dates are listed on the last page of this syllabus.

Final Exam: A cumulative final exam will be administered as a Canvas Quiz. This exam will be available between the hours of 4 PM and 10 PM and you will have 150 minutes to complete it; this includes 30 minutes to account for the use of HonorLock.

All exams will be proctored via HonorLock (see below). Exam time limits include an extra 30 minutes to account for the use of HonorLock.

HonorLock: HonorLock is an online proctoring service that will be used to remotely proctor your exams this semester. You do not need to create an account. HonorLock is available 24/7 and all that is needed is a laptop computer, a working webcam, and a stable Internet connection.

To get started, you will need Google Chrome and to download the HonorLock Chrome Extension. You can download the extension at www.honorlock.com/extension/install.

When you are ready to test, log into Canvas, go to your course, and click on your exam. Clicking "Launch Proctoring" will begin the HonorLock authentication process, where you will take a picture of yourself, show your ID, and complete a scan of your room. HonorLock will be recording your exam session by webcam as well as recording your screen. HonorLock also has an integrity algorithm that can detect search-engine use, so please do not attempt to search for answers, even if it's on a secondary device.

HonorLock support is available 24/7/365. If you encounter any issues, you may contact them by live chat, phone (844-243-2500), and/or email (support@honorlock.com).

Exam Absence Policy: This course administers all conflicts with scheduled exams in accord with the University policy (https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/). University recognized conflicts include, but are not limited to, religious observances, participation in official university activities, military obligations, and court-imposed legal obligations. Students will be given the opportunity to take a *conflict exam*, which will be given shortly *before* the scheduled exam provided that the conflict is a) properly documented and b) disclosed to the Instructor ***at least one week before*** the scheduled exam.

Unpredicted Absences due to medical or sudden family emergencies are not covered under the above conflict exam policy. A student who is absent for an exam due to one of the reasons listed above must contact the instructor as soon as they are able and must submit documentation to the Dean of Students Office (https://care.dso.ufl.edu/instructor-notifications/). Once the instructor is satisfied with the validity of the documentation, a make-up exam will be scheduled after a reasonable amount of time, *i.e.*, before the end of the semester. If the student's documentation is deemed insufficient to excuse the absence, a score of *zero* will be assigned for the missed exam. Exams missed without any documentation will be assigned a score of *zero*.

Quiz/Exam Question Disputes: It is your responsibility to review your quiz/exam submission in a timely manner once quiz/exam scores have been released. If you believe that you have found an error on a quiz/exam or would like to dispute a question, you must so *via* Canvas message within 72 hours after exam scores have been posted and answers released.

Other Information and Policies

Practice Problems: In addition to the OWLv2 homework, additional practice problems will be assigned from the questions at the end of each chapter (EOC) and instructor worksheets/workbook. These homework assignments will not be collected or graded. However, completion and understanding of the practice problems will be of critical importance to succeeding in this course. Do not turn to the solutions manual immediately! Understanding a given solution does not teach you any problem-solving skills. Keep up with the course and you will be in good shape. Try and allow at least 2 hours **per day** (6 days a week) to study, work the problems and read the book chapters.

Contacting the Instructor/Office Hours: Canvas messages are for administrative purposes only, and *not for distance-instruction*. All academic inquiries must be made during office hours or on Piazza (see below). Be prepared before attending office hours, bring specific questions and your previous work. Questions about grades will not be discussed during office hours due to privacy regulations. For the same reason, Zoom office hours will not be recorded.

For private or grade-related questions, direct your questions directly to the instructor using the Canvas message function; be aware that you can send a single message to multiple recipients. **Do not email outside of Canvas to your instructor's email**; you will be asked to resend the query through Canvas.

Questions? Just Ask! This term we will be using *Piazza* for class discussion. The system is highly catered to getting you help fast and efficiently from classmates, TAs, and instructors. You can even ask questions anonymously! Do not send questions *via* email or Canvas message. If you have any problems or feedback for the developers, email team@piazza.com.

You can find a link to our Piazza class page on the e-Learning website.

Netiquette: All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions, and chats.

When attending Zoom meetings, please come prepared. Mute your audio whenever you are not speaking. Be presentable: clothing is not optional. Make sure not to show any personally identifiable information and/or other items that you do not wish others to see. Let others finish what they are saying and only speak when it is your turn. Be present: you can check your email and work on other tasks after the meeting. Turn off all notifications and make sure your cell phone does not ring.

Advising Issues: Visit or contact one of the chemistry undergraduate advisors.

Website: https://www.chem.ufl.edu/undergraduate/advising/

Email: advising@chem.ufl.edu

Accommodations for Students with Disabilities: Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, https://disability.ufl.edu/) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodations.

Faculty 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/.

U Matter, We Care: Your well-being is important to the University of Florida. The U Matter, We Care initiative (http://www.umatter.ufl.edu/) is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

The UF Student Honor Code

https://sccr.dso.ufl.edu/wp-content/uploads/sites/4/2018/08/The-Orange-Book-Web.pdf

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."

Honor Code violations include, but are not limited to, copying on an exam (or helping another student to copy), submitting someone else's work as your own, having another person complete assignments for you, unauthorized collaboration/aid and/or purposely blocking the view of your webcam during exams.

Any student found responsible for an academic honesty violation will receive a zero (0) for the compromised exam or assignment.

Course Schedule

Week	Chapter(s): Topics
M, 1/11	Introduction
W, 1/13	1: Line-Angle Formulas, Functional Groups
F, 1/15	1: Resonance
M, 1/18	Holiday (no lecture)
W, 1/20	1: Intro to MO Theory
F, 1/22	1: Hybridization, Hybridization for Atoms with Lone Pairs
M, 1/25	4: Conjugate Acid-Base Pairs, Brønsted-Lowry Bases, Acid Strength, Acid-Base Equilibria
W, 1/27	4: Mechanisms of Acid-Base Reactions, Factors Affecting Acid Strength, Lewis Acids and Bases
F, 1/29	Review / Practice Exam Walkthrough
M, 2/1	**Exam #1 (no lecture)**
W, 2/3	2: Alkane Intro and Nomenclature
F, 2/5	2: Conformational Analysis of Alkanes
M, 2/8	2: Intro to Cycloalkanes
W, 2/10	2: Conformational Analysis of Cycloalkanes
F, 2/12	2: Review of Alkane and Cycloalkane Conformations
M, 2/15	3: The Concept of Chirality, Chiral Atoms and Molecules, Types of Stereoisomers
W, 2/17	3: Naming Chiral Centers (Assigning *R*/*S*), CIP Rules, Acyclic Molecules with 2 Stereocenters
F, 2/19	3: Acyclic Molecules: *meso* Compounds, Fischer Projections
M, 2/22	3: Cyclic Molecules with 2 Stereocenters; Optical Activity, Enantiomeric Excess and Resolution
W, 2/24	Review / Practice Exam Walkthrough
F, 2/26	**Exam #2 (no lecture)**
M, 3/1	5: Alkene Intro and Nomenclature; Getting Ready for Ch. 6 and Beyond
W, 3/3	6: Addition of Hydrogen Halides to Alkenes, Carbocation Stability
F, 3/5	6: Regioselectivity and Stereochemistry of Hydrohalogenation, Carbocation Rearrangements
M, 3/8	6: Acid-Catalyzed Hydration, Addition of X_2 to Cyclic Alkenes
W, 3/10	6: Addition of X_2 to Acyclic Alkenes, Halohydrin Formation (Addition of HOX to Alkenes)
F, 3/12	6: Oxymercuration-Reduction, Hydroboration-Oxidation
M, 3/15	6: Oxidation, Reduction and Stability of Alkenes
W, 3/17	7: Alkyne Intro and Nomenclature, Acidity and Alkylation of 1-Alkynes, Alkynes from Alkenes
F, 3/19	7: Electrophilic Addition to Alkynes, Hydration and Reduction of Alkynes, Organic Synthesis
M, 3/22	Synthesis Examples
W, 3/24	8 Structure of Haloalkanes, Regioselectivity and Energetics of Free Radical Halogenation (material on Exam 4)
F, 3/26	**Exam #3 (no lecture)**
M, 3/29	8: Mechanism of Free Radical Halogenation, Energetics of Chain Propagation Steps, Regioselectivity of Bromination *vs.* Chlorination, Examples
W, 3/21	8: Allylic Bromination, Radical Addition of HBr 9: Overview of Substitution and Elimination
F, 4/2	9: S_N2 Intro, Mechanism and Details
M, 4/5	9: S_N1 Reaction, E1 Reaction, E2 Reaction
W, 4/7	9: Stereochemistry of E2 Reaction, S_N2 *vs.* E2 Examples
F, 4/9	10: Structure and Nomenclature of Alcohols, Acidity and Basicity, Reaction with Active Metals, Reaction with Hydrogen Halides
M, 4/12	10: Reaction of Alcohols with PBr_3 and $SOCl_2$, Formation of Alkyl and Aryl Sulfonates, Acid-Catalyzed Dehydration of Alcohols, Pinacol Rearrangement
W, 4/14	10: Oxidation of Alcohols, Synthesis Examples
F, 4/16	**Exam #4 (no lecture)**
M, 4/19	11: Ether Structure and Nomenclature, Preparation and Reactions of Ethers
W, 4/21	11: Preparation and Reactions of Epoxides
F, 4/23	Reading Day (no lecture)
S, 4/24	**Cumulative Final Exam**