CHM 2211/11006 Fall 2024

UNIVERSITY OF FLORIDA

COURSE SYLLABUS

Chemistry 2211: Organic Chemistry II

Class number: 11006

Lecture Time and Location:

M, W, F: Period 8 (3:00 PM – 3:50 PM); Room: FLI 0050

Instructor and Contact Information:

Professor Zhongwu Guo; Office: SFH 302D; telephone: 352-392-9133; e-mail: zguo@chem.ufl.edu

Instructor Office Hours:

M & F: 4:00 PM – 4:50 PM, SFH 302D. Any other meeting: by email appointment only (72 h in advance)

TA Office Hours:

Teaching assistant (TA) office hours: to be announced.

E-Learning Website:

<u>https://elearning.ufl.edu/</u> or <u>https://lss.at.ufl.edu/</u> Check regularly to find announcements, lecture notes and handouts, exam scores, and other information related to this class.

Textbooks:

Required: Brown, Iverson, Anslyn, and Foote "*Organic Chemistry*" 9th or 8th Edition (CENGAGE; e-book ISBN: 9780357710678/9781305580350; or paperback ISBN: 9780357451861/1305580354)

Recommended: Brown, Iverson, Anslyn, and Foote "Student Study Guide and Solutions Manual, Organic Chemistry" (CENGAGE; ISBN: 9780357451953), OWL access, and a molecular modeling kit

Important notes: This course is participating in UF All Access, the least expensive and fastest way to get access to your course materials! Please visit: https://www.bsd.ufl.edu/G1C/bookstore/allaccess.asp to OPT in and purchase your access code [includes OWLv2 access and e-book].

Textbook Buying Options:

In addition to the UF bookstore and usual on-line booksellers, you can purchase a "bundle" directly from the publisher at substantial savings.

Reading and Homework Assignments:

Homework assignments are created based on the textbook and lectures. You will get 5 bonus points for online submission of each finished homework. There are also many in- and end-of-chapter problems in the textbook. It is highly recommended to attempt all these problems, although they will not be collected or graded. It is the students' responsibility to work on the problems and read the book chapters, which will help you with the exams and is essential for being successful in the course. OWL ("electronic" homework) includes additional study resources. Learn to use on-line resources—there are also many problems, quizzes, and exams on the internet. Allow at least 2 hours per day to study and read book chapters and work on the problems. Use the office hours wisely, and do not wait until the last minute to come to ask for help. The more you read and the more problems you solve, the better you become.

Organic Chemistry Learning Center (OCLC):

There is also free help from graduate student teaching assistants in OCLC Monday through Friday in SFH room 203/205. You can go to OCLC anytime during office hours. A schedule of TAs will be posted in the

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corridor outside OCLC and, also, online. Additionally, there is the teaching center located on the ground floor of Broward Hall, if you'd like to use that resource. Their web site is http://www.teachingcenter.ufl.edu.

Course Objectives and Student Outcomes:

Consider each of these outcomes in terms of your understanding and abilities in Organic Chemistry as they are now at the start of this course. Consider these outcomes periodically throughout the semester. As a result of your studies in CHM 2211, you will demonstrate:

- A positive attitude about studying/learning chemistry;
- Confidence in your ability to analyze and solve chemical problems;
- An understanding of structures, properties, reactions, and structure-property relationships of organometallic compounds, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives, dienes, conjugated systems, aromatic compounds, and amines;
- A basic knowledge of organic synthesis.

Conduct in the Classroom:

All students are expected to be punctual in their attendance at lectures. If you are a few minutes late for a class, please sit in a seat that does not require you to climb over other students and can meet the requirement of physical distancing. You are expected to be on time for all exams, and extra time will NOT be allocated to any student who arrives late. You are expected to be considerate toward your fellow students, and it is requested that you do not hold conversations during the class. Any student who persists in talking during lectures will be asked to leave the room. Please turn off cell phones before entering the lecture hall, or you will be asked to leave the room.

Examinations and Grading Policies:

The midterm exams are given on Sept. 25, Oct. 16, and Nov. 15 (time and location to be announced). The final exam will be on Dec. 7, 3:00 – 5:00 PM, location to be determined by the registrar's office that may differ from FLI50. All exams are eligible for regrading. All exam regrading requests MUST be submitted in writing to Prof. Guo detailing your concerns (you can write on plain paper, staple the sheet to the exam, and then submit to Dr. Guo in person or place the exam in the regrade box in Prof. Guo's office in SFH 302) no later than 1 week after the date that the exams are returned. Questions regarding grades/grading are not accepted by e-mail. Please also note that once your exam is submitted for regrading, the entire exam will be reviewed to ensure accuracy, thus your score may increase or decrease accordingly, and regraded exams are not returned to you. Furthermore, the exams are randomly photocopied, and if any modifications of an exam are noticed, it will be considered as academic misconduct.

There is no make-up exam for this class. However, each student will be excused from missing ONE (1) midterm exam (to get 0 point for the missed exam) for any or no reason. No student will be allowed for missing the final exam, and no student will be allowed for missing more than one midterm exam. In the event that you have valid reasons and have got permission from the dean of student office for missing the final exam or missing two to three midterm exams, you will get an incomplete grade, and you will need to take the missed exams with the class next semester to obtain your final letter grade.

Letter grades will be assigned based on the scores of the **final exam**, **two best midterm exams** (thus the lowest one of the three exams, such as your missed exam, will be dropped), and **all the bonus points**. For example, if a student gets 90, 60, 0 (missed), and 178 pts for the exams and 12 bonus pts, his/her final grade percentile will be (90 + 60 + 178 + 12)/400 = 85%, which gives an "A-" letter grade. For another example, if a student gets 90, 80, 70, and 180 pts for the exams and 10 bonus pts, his/her final grade percentile will be (90 + 80 + 180 + 10)/400 = 90%, which gives an "A" letter grade. A unique scenario is: if your percentile is higher without dropping a midterm exam (*most probably* due to a poor final exam score), I will not drop any of your midterm exams, so that you can get the highest letter grade possible. At the instructor's discretion, a curve may be applied to adjust grade distributions, which will be determined only at the end of the semester.

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Grade Scales: A >90% A^{-} <90% but >85%; $B^{+} < 85\%$ but > 80%; B <80% but >75%; B^- <75% but >70%; C^- < 70% but > 65%; C < 65% but > 60%: C^{-} <60% but >55%: $D^+ < 55\%$ but > 50%; D <50% but >40%; E <40%.

Other Important Information:

- Disability Resources: 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.
- Division of Student Affairs (Counseling, Dean of Students Office): http://www.ufsa.ufl.edu/.
- UF Grades and Grading Policies: https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx.
- Lose or find something during class? Visit the Chemistry lost-and-found (Leigh Hall 218).
- Need to drop this course? You can do so by logging in to ONE.UF and select "After Deadline Add/Drop Classes" under Registration in the main menu. If you have questions or need help with this process, please reach out to the advising office in your college.
- Your well-being is important to UF. 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.
- Online course evaluation: 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 received 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/.

Copyright Notice:

All handouts used in this course are copyrighted and may not be copied without Dr. Guo's expressly granted permission. "Handouts" include all materials generated for this class. Only students currently enrolled in the class may make a single copy of this material for their personal use.

Student Honor Code:

The UF Student Honor Code (see http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/ for details): 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

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an exam (or helping another student to copy) and/or turning in an exam for regrading that has been changed since it was graded by the instructor.

Any student found responsible for an academic honesty violation in this course will be recommended sanctions consistent with the offense.

Information about Recording in Classroom:

- Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.
- A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.
- Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Classroom Behavior Expectations for COVID-19:

We will have face-to-face instructional sessions to accomplish the learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- This course has been assigned a physical classroom with enough capacity. Please do not move desks or stations and wonder around in classroom.
- Hand-sanitizing stations are placed inside of our classroom. It is a good practice to sanitize your hands before you enter and after your exit the classroom.
- You can wear face coverings during the classes and within buildings, but this is not required.
- Please wipe your desk down with sanitizing wipes prior to sitting down and at the end of the class.
- Practice physical distancing, if possible, when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms (https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html), please use the UF Health screening system and follow the instructions on whether you are able to attend class.
- During the office hours, you should wear face coverings and practice physical distancing. Therefore, the number of students present at the office may be limited, and students will be addressed on a first-come-first-serve basis. Meetings outside of office hours are possible but by email appointment only (at least 3 days in advance).

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Course Schedule (Tentative)

Syllabus & Introduction Aug. 23

Chapter 15. Organometallic Compounds

3 lectures **Aug. 23, 26, 28**

Chapter 16. Aldehydes and Ketones

5 lectures Aug. 30; Sept. 4, 6, 16, 18

Chapter 17. Carboxylic Acids

2 lectures Sept. 20, 23

Note: No class on Sept. 2 (holiday) and Sept. 9-13 (scientific meetings)

Midterm Exam #1: Sept. 25 evening (Chapters 15, 16 and 17 only)*

Chapter 18. Derivatives of Carboxylic Acids

5 lectures Sept. 25, 27, 30; Oct. 2, 4

Chapter 19. Enolate Anions and Enamines

4 lectures Oct. 7, 9, 11, 14

Midterm Exam #2: Oct. 16 evening (Chapters 18 and 19 only)*

Chapter 20. Dienes, Conjugated Systems, and Pericyclic Reactions

4 lectures Oct. 16, 21, 23, 25

Chapter 21. Benzene and the Concept of Aromaticity

4 lectures Oct. 28, 30; Nov. 1, 4

Chapter 22. Reactions of Benzene and Its Derivatives

4 lectures **Nov. 6, 8, 13, 15**

Note: No class on Oct. 18 (homecoming day) and Nov. 11 (holiday)

Midterm Exam #3: Nov. 15 evening (Chapters 20, 21, and 22 only)*

Chapter 23. Amines

3 lectures Nov. 18, 20, 22

Chapter 24. Catalytic Carbon-Carbon Bond Formation

2 lectures **Dec. 2, 4**

Note: No class on Nov. 25-29 (holidays)

Final Exam: Dec. 7, 3:00-5:00PM, location to be announced later[†]

- * The official exam time is 50 min, but to allow for more time and flexibility, we will have them in the evening on the indicated dates. The time and location for these exams need to be approved by the registrar's office and thus will be finalized later.
- [†] The location for the final exam is not finalized yet, which will be decided by the registrar's office. Once this information is confirmed, I will let everyone know.