### Syllabus CHM 6225 – Advanced Principles of Organic Chemistry

Instructor & Contact Information: Prof. Austin M. Evans, <u>AustinEvans@chem.ufl.edu</u>, Sisler 229 Class Time & Location: Tuesday/Thursday, 11:45 – 1:40 PM, Flint Hall 109 Office Hour: Wednesday 3-4 PM – Subject to change. Please email me if you plan to attend.

**Conspectus.** Principles of organic chemistry and their application to reaction mechanisms. A detailed introduction to the theory and principles of organic chemistry; bonding and structure in organic chemistry, stereochemistry, reactive intermediates in organic chemistry and transition state theory; kinetics and thermodynamic approaches. A subfocus of this course is the characterization of organic chemical reactions and how chemical structure translates to physical properties.

**Prerequisites.** CHM 2210, 2211 and CHM 5224 (or equivalent). **Recommended.** CHM 3120 (undergraduate analytical chemistry) or equivalent.

**Textbooks.** There is no required textbook for this course. The course handouts (available online) are intended to be free-standing. These course handouts are developed from the following texts, which can provide more information:

- (1) Carey, F. A.; Sundberg, R. J. Advanced Organic Chemistry: Part B: Reactions and Synthesis, Fifth Edition; Springer: New York, 2007 (ISBN 978-0-387-68354-6, Paperback).
- (2) Anslyn, E. V.; Dougherty, D. A. *Modern Physical Organic Chemistry*; University Science Books, Sausalito, CA, 2006 (ISBN 1-891389-31-9).

e-Learning Resources. All students have access to the e-Learning website: https://elearning.ufl.edu/

Login to Canvas with your Gatorlink account username and password. Lecture materials will be posted on e-Learning prior class. Check e-Learning often; the posted lecture notes should be downloaded and brought to each class. You will need them. The site may also be used for making announcements, recording grades, and listing practice problems. Additional supplemental course materials will also be posted on Canvas.

**Class Format.** This class is scheduled to be offered in-person only. Due to unavoidable circumstances, some of the lectures will be given virtually on Zoom. If this is to be the case, the rescheduling and Zoom link will be provided to those enrolled in the course.

**Learning Assessments.** The following evaluations will be used to monitor progress towards the learning objectives. All exams are inherently cumulative. <u>A total of 900 points are available in this course.</u>

There will be two take-home exams (300 points each). All exams should be considered cumulative since any question may require mastery of a concept or principle addressed earlier in the course. Examinations will contain questions based on concepts discussed in lectures and assigned readings. There is no "final exam". The format these exams is non-standard. Exams will be given out at the end of a course period and will be collected by Professor Evans in class approximately one week later. There are *no* restrictions on the resources you may use during the exam including (but not limited to) the internet, course materials, or working with your colleagues in this course. <u>NOTE: Identical answers will be considered plagiarism and will not be accepted or graded</u>. As such, if you choose to work with your colleagues in this course, it is suggested that you discuss the content but not share answers directly. <u>Exams may not be shared with anyone</u>

not enrolled in CHM 6225. Many of these questions are related to or directly taken from the primary literature. It is expected that you will be able to obtain these works independently.

# EXAMS ARE NOT TO BE COPIED IN ANY FORM. SHARING THE EXAM WITH THOSE OUTSIDE OF CHM 6225 OR COPYING EXAMS WILL RESULT IN AN IMMEDIATE FAILING OF THE EXAM AND A REFFERAL FOR ACADEMIC DISCIPLINE.

- Exam 1. Assigned: February 25<sup>th</sup> 2025. Due: March 4<sup>th</sup>, 2025 (*Tenative*)
- Exam 2. Assigned: April 22<sup>nd</sup> 2025. Due: April 29<sup>th</sup> 2025 (*Tenative*)

#### Total = 600 potential points

Each module of this course will include a quiz that will be given on Canvas. You will have one week to complete each quiz.

#### Total = 300 potential points

*Note:* For reasons of privacy, grades will not be discussed by email. All grades will be posted on e-Learning. If you have questions about your grade, you should come to office hours to discuss your questions/concerns with me.

**Exam Absence Policy.** This course administers all conflicts with scheduled assessments and examinations in accord with University policy. Due to the take-home nature of these exams, no exams will be administered to absent or otherwise compromised students for a grade after the established and scheduled assessment time. Exams for credit given to excused students after the rest of the class is given their exam are herein defined as *makeup exams*; no *makeup exams* are given in this course.

Unpredicted absences due to medical emergencies are not covered under the above conflict exam policy. If the time and severity of the emergency is severe enough to make continuation in scholastic activity impossible for the rest of the term, a medical withdrawal is strongly advised. If the condition warranting the absence at a scheduled exam is unexpected, relatively minor, and can be recovered from in short order, the student must provide <u>verifiable documentation</u> from the Dean of Students Office of the medical emergency to Prof. Evans no later than one day after the scheduled assessment date. If proper verifiable documentation of the medical emergency is acceptable to Prof. Evans at the time the student is ready to restart his/her academic pursuits, the instructor and student together decide to either: 1) allow an additional assignment to be delivered to the student, usually in the form of a 10-page term paper on a physical organic chemistry-specific topic; 2) allow the final exam score to count as the score for the missed exam or 3) begin the process for the request of a medical withdrawal from the course by the student. <u>No makeup exams (as defined above) are ever given</u>.

**Regrading.** If you have a question concerning the grading of an assignment, you may submit the entire assignment for complete regrading. Your score may increase or decrease accordingly. The exam must be submitted for regrading by the end of the first class meeting after the date the assignment was returned to the class. This means that exams handed back on Tuesday should be submitted for regarding by the end of class on Thursday. Please note that your graded exams will be photocopied prior to being returned to you.

Classroom etiquette. Cell phone use/text messaging is strictly prohibited in the lecture hall at all times.

Accommodations for students with disabilities. 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.

## UF Honor Code. 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, the following pledge is either required or implied: **"On my honor, I have neither given nor received unauthorized aid in doing this assignment."** "The university requires all members of its community to be honest in all endeavors. A fundamental principle is that the whole process of learning and pursuit of knowledge is diminished by cheating, plagiarism and other acts of academic dishonesty. In addition, every dishonest act in the academic environment affects other students adversely, from the skewing of the grading curve to giving unfair advantage for honors or for professional or graduate school admission. Therefore, the university will take severe action against dishonest students. Similarly, measures will be taken against faculty, staff and administrators who practice dishonest or demeaning behavior."

**Cheating and Plagiarism.** Cheating and/or plagiarism will not be tolerated. The minimum penalty will be an automatic zero on the assignment in question. You will not be allowed to drop this zero as your lowest exam grade. It will count toward your average. Suspension from the University may also result. Do not risk it. It is not worth it. Plagiarism consists of passing off as one's own the ideas, words, writings, etc. that belong to someone else. You are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have that person's permission. See: <a href="http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php">http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php</a>

**Copyright Notice.** All handouts, videos, and audio recording used in this course are copyrighted and may not be copied without my expressly granted permission. "Handouts" include all materials generated for this class, which include but are not limited to syllabi, exams, problems, in-class materials, review sheets, problem sets, or other materials. Tutors and tutoring services are expressly forbidden from copying any or all of these materials. Only students currently enrolled in the class may make a single copy of this material for their personal use.

**Course 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 <u>https://gatorevals.aa.ufl.edu/students/</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>https://ufl.bluera.com/ufl/</u>. Summaries of course evaluation results are available to students at <u>https://gatorevals.aa.ufl.edu/public-results/</u>."

**Disclaimer.** Changes to this syllabus may become necessary and will be made with my sole discretion. Any changes will be announced during class in a timely fashion.

© 2025 Austin M. Evans