

Loyola University Chicago

Organic Chemistry A CHM 223 Sec. 005, 006 Summer Session A May 24 – July 2 2010

Lecture: M, W, F 02:00 PM - 04:50 PM Cudahy Science Hall 207

Instructor: DONALD MAY Contact: dmay4@luc.edu

Office: Flanner Hall 403 Hours: Friday 12:30 PM - 01:30 PM (other times by appointment)

Required Materials:

Textbook: Organic Chemistry, Wade, L.G., Jr., 7th ed., Prentice Hall, 2010.

ISBN 978-0-321-59231-6

Optional: 1) Study Guide and Solutions Manual Wade & Simek, 7th ed. ISBN 978-0-321-59871-4

2) molecular model kit

3) Pushing Electrons: A Guide for Students of Organic Chemistry, D. Weeks

Method of instruction: Lecture and discussion

Lectures may be supplemented with classroom discussion, use of molecular models, use of multimedia, and/or use of computer based materials as well as individual and/or group problem solving.

Grading: Semester grades will be determined by the following criteria: two unit exams and one cumulative final exam. See schedule. There are no early and no make-up exams. The student must have a valid and verifiable reason for missing the final exam, such as a serious illness requiring hospitalization, and so forth. Oversleeping, not knowing the date and time of the final exam or not being prepared and so forth, are not valid reasons. If a verifiable and valid reason cannot be provided a zero score for the final exam will be recorded.

Final course grade: Grading will be based on a curve: The mean, standard deviation and quartiles will be utilized for assigning grades to scores. The general guidelines are: the lowest "C" will be the score/percent 10 points below the class average, the lowest "B" will be the score ten points above the class average. Other grades correlated to scores will be determined from the exam score distribution. Grades assigned will be: A, A-, B+, B, B-, C+, C, C-, D+, D, F.

Student Conduct: Only students enrolled for the class may attend. At all times students are expected to conduct themselves in a professional manner, which includes but is not limited to: treating everyone in class with respect, avoidance of extraneous comments and small group discussions during lecture. Additionally radios, headphones, cell-phones or similar electronic devices must be in silent mode and are not permitted to be in operation during lectures and exams. Students are expected to take care of personal matters before lecture begins. The eating and drinking of food, water, soda, use of tobacco products, chewing gum, spitting are not allowed. Not all possible contingencies for student conduct can be listed, subsequently other modes of student conduct not listed, will be addressed immediately. Disruptive students will be required to leave. During exams, keep noises to a minimum. If a cell phone rings (beeps, buzz, etc.) during any exam, the exam will be collected and the student will not be allowed to continue. Non-religious caps or hats are not allowed to be worn during exams. Additional guidelines for exams will be posted. Suggested textbook homework problems will be given but the student will not be required to turn them in. Exam questions, however, will come predominantly from lecture notes and from concepts related to suggested homework problems.

Academic Integrity: Consult the Undergraduate Studies Handbook for additional information. All exams are closed book and closed note. During exams, violations include but are not limited to: using unauthorized notes or books, looking at another student's exam, talking to other students, a cell phone ringing, answering a cell phone, opening and/or utilizing anything in your book bag, and so forth. Any student found to be in violation or cheating, will be given an "F" for the course and will not be allowed to withdraw. Students must bring their Loyola I.D to each exam. Students are not allowed to leave during exams. If you leave, you must turn in your exam and you will be considered finished with the exam. Students cannot begin an exam and decide not to complete it. Students must turn in all exam materials when finished.

Lecture Outline (tentative / subject to change)**Schedule: Organic Chemistry Lecture, Chemistry 223 A, Summer A 2010****MAY/JUNE**

Monday	Tuesday	Wednesday	Thursday	Friday
24 CHP 1	25	26 CHP 2	27	28 CHP 3
31 NO CLASS	01	02 CHP 4	03	04 CHP 5

JUNE/JULY

Monday	Tuesday	Wednesday	Thursday	Friday
07 <u>EXAM I</u> CHP 6	08	09 CHP 7	10	11 CHP 8
14 CHP 9	15	16 CHP 10	17	18 CHP 11
21 <u>EXAM II</u> CHP 12	22	23 CHP 12	24	25 Last drop day with "W"
28 CHP 13	29	30 CHP 13	01	02 FINAL EXAM

In general, the last part of lectures on Fridays will be utilized for discussion, which will start around 04:00 PM. This will allow students to ask questions from homework, previous lecture material and so forth. Discussion handouts, to be completed, may also be given. Lectures will incorporate 50 minutes of time followed with an 8-10 minute break. Exams will cover all material up to and including material from the previous Friday. Lecture will then continue with new material, 5-10 minutes after the completion of each unit exam.

Course Practices Required:

College-level writing skills on exams; Communication skills for discussion and articulation of questions; Completion of reading assignments, working through suggested homework and hand-outs.

Learning Objectives:

Students who successfully complete this course will be able to do the following at an acceptable level:

Relate molecular orbital hybridization to bonding types

Name and draw simple and more complex organic structures

Differentiate between isomer types (structural and stereo) and conformers; predict and name different stereoisomers

Describe and differentiate between various mechanisms, such as addition versus substitution, and electrophilic versus nucleophilic

Relate reaction mechanisms to intermediates, stereochemistry, and kinetics; predict reaction mechanism from experimentally related data and vice versa

Work with multi-step reaction pathways; develop synthetic pathways to simple organic compounds

Use NMR, IR, UV, and mass spectrometry data to identify structures; predict the spectroscopic data from the structure

Predict both physical and chemical properties of alkanes, alcohols, alkenes, alkynes and alkyl halides