

**Loyola University Chicago**

**Organic Chemistry II** CHEM 224 Sec. 005 Summer Session II: July 04 – August 12, 2016

**Lecture:** M, W, F 09:00 AM - 11:40 AM Mundelein 507

**Instructor:** DONALD MAY Contact: [dmay4@luc.edu](mailto:dmay4@luc.edu)

**Office:** Flanner Hall 403; **Hours:** M, W, F: 11:50 AM – 12:30 PM; **Other times by appointment.**

**Required Materials:** **Textbook:** Organic Chemistry, Wade, L.G., Jr., 8th ed., Prentice Hall, 2012

**Optional:** 1) Study Guide and Solutions Manual Wade & Simek, 8<sup>th</sup> ed.

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. Suggested textbook homework problems will be given but the student will not be required to turn them in.

**Grading:** Semester grades will be determined by the following criteria: discussion handouts, 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. Discussion handouts will contribute 10% toward the final grade. Students must attend the lecture to receive the handout and attend lecture, to turn in the handout, on the due date. No exceptions. Students are allowed and encouraged to work together on discussion handouts. Discussion handouts must be: in regular #2 or HB pencil only, are expected to be neat and legible, free of scribbling/scribbled responses, incorporate correct chemical symbols (Review the Chemical Periodic Table of the Elements). Two unit exams will contribute 25% with the comprehensive final at 40%; Discussion 10% + (2 unit exams at 25%) 50% + comprehensive final exam at 40% = 100%

**Final course grade assigned:** A: 100% – 87.0% A- : 86.9% – 83.0% B+: 82.9%–79.0%

B: 78.9% –75.0% B-: 74.9%–71.0% C+: 70.9% – 67.0% C: 66.9% –63.0% C-: 62.9% –59.0%

D+: 58.9% –55.0% D: 54.9% –51.0% F: < 51.0%

**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, discussions and exams. Students are expected to take care of personal matters before lectures, discussions and exams begin. The eating and drinking of food, water, soda, use of tobacco products, chewing gum, are not allowed, unless medically indicated by a physician. 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. Students are responsible for taking care of all personal matters before an exam begins. During exams, please keep sounds/noises to a minimum. If a cell phone rings (beeps, buzz, etc.) during any exam, the exam will be collected (See Academic Integrity) 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. Exam questions will come predominantly from lecture notes and from concepts related to suggested homework problems. Students must bring and present 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 must turn in all exam materials/pages when finished. Loose pages should be initialized by the student before turning in the exam. Exams turned in will not be returned until all exams are graded. The instructor reserves the right to modify any course requirement at any time.

**Academic Integrity:** Consult the Undergraduate Studies Handbook for additional information. All students in this course are expected to have read and to abide by the demanding standard of personal honesty, drafted by the College of Arts & Sciences, which can be viewed at:

[http://www.luc.edu/cas/pdfs/CAS\\_Academic\\_Integrity\\_Statement\\_December\\_07.pdf](http://www.luc.edu/cas/pdfs/CAS_Academic_Integrity_Statement_December_07.pdf)

Anything you submit that is incorporated as part of your grade in this course must represent your own work, unless otherwise authorized. All exams are closed book and closed note: No external materials or personnel are allowed. During exams, violations include but are not limited to: cell phone ringing, answering/using a cell phone, using unauthorized notes or books, looking at another student's exam, talking to other students, opening and/or utilizing anything in your book bag after the exam begins, and so forth. Any student found to be in violation or cheating will be given a zero for the assignment/exam and the incident will be reported to the Chemistry Department Chair and the Office of the CAS Dean. Depending on the seriousness of the incident, additional sanctions may be imposed.

**Lecture Outline (tentative / subject to change)**

Schedule: Organic Chemistry II Lecture, Chemistry 224 005, Summer B 2016

All classes: M, W, F 09:00 AM - 11:40 AM Mundelein 507

**JULY**

Monday	Tuesday	Wednesday	Thursday	Friday
04 <u>NO CLASS</u>	05	06 Review CHP 12 CHP 13	07	08 Review CHP 13
11 CHP 15	12	13 CHP 16	14	15 CHP 16,17
18 <u>EXAM I</u> CHP17	19	20 CHP 17	21	22 CHP 18
25 CHP 18,19	26	27 CHP 19	28	29 CHP 20

**AUG.**

Monday	Tuesday	Wednesday	Thursday	Friday
01 <u>EXAM II</u> CHP 21	02	03 CHP 21	04	05 CHP 22 "W" day
08 CHP 22,23	09	10 CHP 23,24	11	12 <u>FINAL</u> <u>EXAM</u>

Lectures will incorporate 50 minutes of time followed with a 10 minute break. In general, the last part of lectures will be utilized for discussion, which will be 25 minutes. This will allow students to clarify questions from homework, previous lecture material and so forth. Discussion handouts will also be given. Exams will be about 50 minutes in duration and generally cover all material up to and including material from the previous Friday's lecture. Exams will begin promptly at the beginning of the lecture day. Lectures subsequent to exams will then continue with new material, 10-15 minutes after the completion of each unit exam. The lecture on August 10, 2016 will be a full lecture. The final exam will be cumulative /comprehensive and will be 2 hours in duration.

**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. It is strongly suggested that the student study consistently every day: waiting until a few days before the exam, to assimilate the information generally will not give satisfactory results.

**Learning Objectives:**

Students who successfully complete this course will be able to do the following at an acceptable level: 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 nucleophilic acyl addition versus substitution; differentiate between types of electrophilic aromatic substitution and nucleophilic aromatic substitution; Relate reaction mechanisms to intermediates, stereochemistry, and kinetics; predict reaction mechanism from experimentally related data and vice versa; Work with multistep reaction pathways; develop synthetic pathways to simple and more complex 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 ethers, aromatics, phenols, aldehydes, ketones, carboxylic acids, derivatives of carboxylic acid and amines; Predict the structure, regio-chemistry and stereochemistry of conjugated dienes reacting with dienophiles and various carbonyl and other condensation reactions; Identify and describe bio-molecules including carbohydrates, amino acids/proteins, and heterocyclic/nucleotide/nucleic acids

**Disability Accommodations:**

Students requiring accommodations at the University need to contact the Coordinator of Services for Students with Disabilities. The instructor will provide accommodations after receiving documentation from SSWD and allowance of a reasonable time frame for arrangements (minimally, one week in advance). Accommodations cannot be retroactive. Information is available at: <http://www.luc.edu/sswd/>