

Instructor: Dr. Polina Pine

Lectures: MTWTh 12:20-2:20 Cuneo 302

Phone 83134

Email: ppine@luc.edu

Office Location: FH-403

Office Hours: MTWTh by appointment

Course Overview

This course is the first in a yearlong two-semester sequence of organic chemistry covering the structure, properties, and reactivity of aliphatic and alkenic molecules. Specific topics include bonding, nomenclature, conformational analysis, reaction mechanisms, multi-step synthesis, and spectroscopy (MS, IR, and ^1H and ^{13}C NMR).

The student should learn how to:

- Identify the various classes of organic compounds, their methods of preparation, and typical reactions.
- Name and draw specific organic compounds.
- Postulate a logical reaction mechanism for simple organic reactions.
- Discriminate amongst relative stabilities of reaction intermediates.
- Plan and write out multi-step syntheses using known functional group transformations.
- Analyze and interpret data from instruments used in separating and identifying compounds: IR, NMR, MS.

IDEA Objectives

These objectives include learning outcomes beyond this course and will apply across multiple courses and disciplines as you develop as an independent learner at Loyola. These have been selected by the faculty to apply to all sections of Organic Chemistry:

1. Gaining factual knowledge (terminology, classifications, methods, trends)
2. Learning fundamental principles, generalizations, or theories
3. Learning to apply course material (to improve thinking, problem solving, and decisions)
4. Learning how to find and use resources for answering questions or solving problems

Textbook and material:

- Organic Chemistry, Wade, 8th edition, Prentice Hall; hard copy or eText (Required). Students can get any edition of the above textbook, however assignments and supplemented teaching will be given based on the 8th edition. If student decides to use

different edition it is student's responsibility to be adjusted to the 8th edition. **Bring to every class**

- Study Guide and Solutions Manual to above text, Wade & Simek (Highly Recommended)
- Molecular Modeling Kit (Highly Recommended) – bring to each class
- Organic Chemistry I As a Second Language, Klein (Extremely Highly Recommended)

Learning procedure:

- No Taking Photos
- No taking Videos
- No Audio recording
- Using the computers, cell phones and tablets may be allowed only by a prior agreement by the instructor. Must be operated on silent mode during lecture and discussion.
- **It is student's responsibility to follow the announcements, and all policies of the class.**
- The class lectures and discussions will be the most critical source of information for this course. If you miss a lecture, please find notes from another student in class.
- Classes will be given as a combination of the following formats: board, multimedia, use of models, discussions, independent and facilitated problem solving.
- Dr. Pine's lecture slides if posted on Sakai may be doubling the material in the class or covering material that expected to be covered by students independently. Follow the announcements in class and ask Dr. Pine during the class, after or before the lecture if anything remains unclear.
- Bring the model kit to each class (for CH3-5 is especially important).
- The study guides in form of problems kits (discussion handouts) if assigned will be posted on Sakai, students must print these handouts, bring them to every class and follow all directions given in the handout.
- **Please note that materials from this course cannot be shared outside the course without the instructor's written permission (as reminded by the CAS Dean's Office memo, Jan. 8. 2016).**
- *The majority of the material from CH1 and CH2 was covered in CHEM 101 and CHEM 102 in great details. For this reason CH1&CH2 will be covered briefly, and students will be tested on these concepts. Organic chemistry is heavily based on concepts covered in general chemistry. if you feel hesitant about any of the concepts covered in previous classes you have to review it before coming to first class.*

Students have to expect to devote 20-40 HOURS OUTSIDE OF CLASS TIME PER WEEK to studying for organic chemistry. Try not to do homework with the solutions manual out. THIS IS A COMMON MISTAKE STUDENTS MAKE. Students who study in this manner often trick themselves into thinking they know chemistry when really they do not. Make-up assignments are not available for this course. Contact a classmate for notes, sections/topics covered if you miss a class. **For success in this course, it is**

important to review your notes, read the textbook and look over the slides prior and after class, work on homework problems every day. DO NOT FALL BEHIND. Attendance is not taken for credit but any absence or any not following the policies or announcements given in class may result in poor performance in class.

Due to the fast pace of the semester announcements given in class may not be necessarily doubled/tripled in any electronic form (email, Sakai etc.) It is student's responsibility to follow the announcements, and all policies of the class.

Grading policy:

The letter grades will be given based on the points scored in the course. Finals scores will be determined by the following criteria: discussion handouts and home work problems (will be incorporated in the following unit exam-scores), two unit exams (30% each) and one cumulative final exam (40%). See schedule bellow for the dates of the exams. There are NO EXTRA ASSIGNMENTS NO MAKE-UP EXAMS NO DROPS. Under no circumstances may an exam be taken at a time and date other than that assigned. Unexcused absences (alarm didn't go off, overslept, missed the bus, etc.) will warrant a "zero" on that exam. Excused absences (a death in the family, sickness, university-sponsored athletic events, etc.) require appropriate documentation and will be dealt with on a case-by-case basis, usually by making the final exam count more toward your final grade.

Approximate grading scale: 85.0% is the lowest A-; 70.0% is the lowest B-; 55.0% is the lowest C-; 40.0% is the lowest D.

Re-grade Policy:

In the event of a grade challenge, only exams and quizzes completely done in pen will be eligible for a re-grade. No assignments done in pencil—even partially—are eligible for a re-grade. This policy excludes other errors such as those made by the lecturer (e.g., tallying up points).

The Exams procedure

Calculators, phones, headphones, tablets and any electronic devices are not permitted. Come to the exam with **three** items: working **HB-2 pencil(s)/pens**, model kit, and your **Loyola ID** visible on your desk to be checked during the exam. Cumulative final exam is two hours duration.

All purses, bags, jackets, etc must be left at front of the room. Once the exam is distributed, if you exit the room for any reason before time is up, your exam is complete and will be collected.

Instructor Privileges

Instructor reserves the right to make changes and adjustments to this syllabus as necessary, including, but not limited to the grading policy and course schedule.

Tentative Lecture Schedule (students are expected to read the textbook before the lecture):

Our actual pace and the topics may vary from this schedule: Not all textbook sections will be fully covered, so focus first on the material that is directly covered in lecture and assigned for homework and discussion handouts.

| Week | Day | Monday | Tuesday | Wednesday | Thursday |
|------|---------------------|-----------------|---------|-----------|------------|
| 1 | May 22,23,24,25 | CH1 | CH1/CH2 | CH2/CH3 | CH3 |
| 2 | May 29,30,31 June 1 | NO CLASS | CH3/CH4 | CH4 | CH5 |
| 3 | June 5, 6, 7,8 | Exam I CH5 | CH6 | CH6 | CH7 |
| 4 | June 12, 13, 14, 15 | CH7/CH8 | CH8 | CH9 | CH9 |
| 5 | June 19,20,21,22 | EXAM II CH10 | CH10 | CH11 | CH11/CH12 |
| 6 | June 26, 27,28,29 | CH12 | CH13 | CH13 | FINAL EXAM |

May 23th Last day to drop a course without a grade of "W."

June 23th Last day to withdraw from session without a "WF."

Academic Integrity

Trust and integrity are important qualities in students. All submitted work must represent your own work and your own work only. Academic dishonesty of any kind, such as plagiarism and cheat sheets on exams, will not be tolerated. Any student caught cheating on an assignment in any way will receive a "zero" for that assignment and be reported to Chairperson of the Chemistry Department and the Dean School of Art and Science. For further information regarding the Academic Integrity policy and disciplinary procedures, refer to the Undergraduate Studies Catalog: http://www.luc.edu/academics/catalog/undergrad/reg_academicintegrity.shtml.

Disability Accommodations

At times, students with disabilities may wish to avail themselves of the University's ancillary services. Students requiring accommodations at the University need to contact the Coordinator of Services for Students with Disabilities, then provide documents and schedule arrangements with the instructor at the beginning of the term. Information is available at: <http://www.luc.edu/sswd/>

Tutoring Center

The CTAE offers several different programs each semester, including class-specific tutor-led small groups, Academic Coaching groups dedicated to general academic support, and a Study Buddy Directory for students seeking out more independent collaboration with other students in the same class or subject area. For more information refer to http://www.luc.edu/tutoring/Small_Group_Info.shtml

Harassment (Bias Reporting)

It is unacceptable and a violation of university policy to harass, discriminate against or abuse any person because of his or her race, color, national origin, gender, sexual orientation, disability, religion, age or any other characteristic protected by applicable law. Such behavior threatens to destroy the environment of tolerance and mutual respect that must prevail for this university to fulfill its educational and health care mission. For this reason, every incident of harassment, discrimination or abuse undermines the aspirations and attacks the ideals of our community. The university qualifies these incidents as incidents of bias. In order to uphold our mission of being Chicago's Jesuit Catholic University-- a diverse community seeking God in all things and working to expand knowledge in the service of humanity through learning, justice and faith, any incident(s) of bias must be reported and appropriately addressed. Therefore, the Bias Response (BR) Team was created to assist members of the Loyola University Chicago community in bringing incidents of bias to the attention of the university. If you believe you are subject to such bias, you should notify the Bias Response Team at this link: <http://webapps.luc.edu/biasreporting>

A link to the official Loyola calendar can be found here: <http://luc.edu/academics/schedules/index.shtml>