

Instructor: Dr. Polina Pine

Lectures: MWF 9:20-10:10

Phone 83134

Discussions: Mo 12:35PM - 1:25PM FH-7

Email: ppine@luc.edu

Mo 1:40PM - 2:30PM FH-7

Office Location: FH-403

Office Hours: WF 12:30-1:30 pm

Best (the fastest) way to contact Dr. Pine is in person during the office hours, right after the lecture or before the Discussion Session. If email is sent after 5pm during business days it may be answered the next day.

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).

Course Objective:

To guide, encourage, and foster the learning and understanding of Organic Chemistry by the individual student, helping him/her to connect, extrapolate, integrate, and apply the many different aspects learned.

Student Outcomes: If successful, the student will be able 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.
- 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 (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.**

Class structure:

DO NOT FALL BEHIND

Make-up assignments are not available for this course

- **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, quizzes, 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 the lecture or before the Discussion if anything remains unclear.
- Bring the model kit to each class.
- 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. The handouts will not be graded but will be the essential part of success in the exams.
- **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).**

- 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. 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:

There are NO EXTRA ASSIGNMENTS NO MAKE-UP EXAMS OR QUIZZES.

Under no circumstances may an exam/quiz be taken at a time and date other than that assigned.

The midterm and final letter grades will be given based on the points scored in the course only. Final grade will be determined from one of the following options whichever is higher:

Option1:

Quizzes	10%
Exam 1	20%
Exam 2	20%
Exam 3	20%
Final Exam	30%
Total	100%

Option2 (Lower unit-exam score is a drop):

Quizzes	10%
Unit Exam	20%
Unit Exam	20%
Final Exam	50%
Total	100%

Every unit exams: 50 minutes, the dates are **February 10th, March 15st, and April 7th** also given in the tentative schedule posted on Sakai. **If you miss one unit exam for any reason, Option 2 will automatically be used to determine your grade.** A second missed unit exam will result in a score of zero for the missed exam. There are NO EXTRA ASSIGNMENTS NO MAKE-UP EXAMS OR QUIZZES. Under no circumstances may an exam/quiz be taken at a time and date other than that assigned.

Final exam has to be taken during the scheduled time only!

Final exam: two hours - MANDATORY. The final exam must be taken on the date scheduled or a grade of F will automatically result. Final exam is comprehensive. **Final exam Saturday May 6th 1:00-3:00 pm.** For exact day and time check here:

http://www.luc.edu/academics/schedules/spring/exam_schedule.shtml)

As incentive for you to do the practice problems for each chapter, you have the opportunity to earn 10 credit points added to the unit-exams: Option 1: ((Ex1+Ex2+Ex3+10 points); Option 2: (Sum of two best unit-exams+10 points) if you do all of the following:

- Turn in your homework package in an organized stapled packet **on Wednesday April 5th 2017 during the office hours (12:30-1:30 pm) to FH-403 directly to Dr. Pine. In-class (after**

lecture) submission is allowed ONLY if the office hours are in conflict with the learning schedule):

- Hand in at least 10 completed problems per chapter, Chapters 1–10.
- **Highlight and clearly indicate the beginning of every chapter, problem and subproblem (a/b/c/d etc.); flag each chapter independently.**
- **Neatly indicate the beginning and the end of each problem.**

If not stapled or organized as mentioned above, you will only earn partial credit. These credit points are based on completion, not accuracy. Thus, you are encouraged to work together in study groups. You are also highly encouraged to do more than the minimum required homework problems—in fact, you are encouraged to do all of them— though this will not earn you more extra credit points. However, students who do more homework problems tend to do better on exams and in the class in general than students who do the bare minimum.

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; anything bellow 40% is F.

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.

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. It is students' responsibility to follow all changes in the syllabus.

Course Topics (Not all textbook sections will be fully covered or covered in the order the textbook dictates, so focus first on the material that is directly covered in lecture and assigned for homework and discussion handouts)*:

Chapter 1: Introduction and Review

Chapter 2: Structure and Properties of Organic Molecules

Chapter 3: Structure and Stereochemistry of Alkanes

Chapter 4: The Study of Chemical Reactions

Chapter 5: Stereochemistry

Chapter 6: Alkyl Halides. Nucleophilic Substitution and Elimination

Chapter 7: Structure and Synthesis of Alkenes

Chapter 8: Reactions of Alkenes

Chapter 9: Alkynes

Chapter 10: Structure and Synthesis of Alcohols

Chapter 11: Reactions of Alcohols

Chapter 12: Infrared (IR) Spectroscopy and Mass Spectrometry

Chapter 13: Nuclear Magnetic Resonance (NMR) Spectroscopy

** See Tentative Lecture Schedule posted on Sakai under Recourses. Students are expected to read the textbook before and after the lecture.*

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/>

Students with documented evidence of the time extension must take the exams in the SSWD center ONLY with prior arrangement (usually at least one week before the exam). The start time of the exam must be the start time of the actual lecture or scheduled in such a way that the time of the exam of the student taking the exam in the SSWD center overlaps with the exam time of the class.

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>