

Summer Chem 223-002/004 Syllabus
Organic Chemistry A
Summer 2022

Class meeting times:

(002) MWF, 8:20am-11:10am

(004) MWF, 1:10pm-4:00pm

Class location: Online, through Zoom Classroom

Instructor: Dr. Andrew Basner

Email: abasner@luc.edu

Office Hours: Any time on Thursday on request through Zoom

Class Dates: May 23rd, 2022 – July 1st, 2022

Final Exam: July 1st, 2022

Prerequisites: Chem 102 or Chem 106 (General Chemistry 2 – for majors or non-majors)

Course Description: This course is an organic chemistry course for non-chemistry majors surveying nomenclature, properties, stereochemistry, reactions, mechanisms, and syntheses of aliphatic hydrocarbons, alkyl halides, alcohols, and ethers.

Student Outcomes: A successful student in Chem 223 will be able to:

- Identify classes of organic compounds and typical reactions involving these different classes.
- Understand chemical properties that determine stability in molecules, intermediates and transition states.
- Postulate reaction mechanisms.
- Begin to plan multi-step syntheses using reactions learned in Chem 223.
- Analyze and interpret spectroscopy data.

Required Materials:

1. Organic Chemistry, Klein, 4th ed , Wiley, 2020. Any format is fine, softcover, hard cover, online, etc. (The 4th edition was released recently, a 3rd ed copy will be suitable. These can also be found in the library at Loyola or an online library such as <https://chem.libretexts.org/> will have similar texts.
2. Desktop or laptop computer capable of accessing and running Zoom conference software.

3. CamScanner or Genius Scan phone app, for iPhone or Android. These are free apps that will convert a phone picture to a PDF file. If not possible, you will need a scanner to scan and upload documents.

Optional Materials

1. Student Study Guide and Solutions Manual, Klein, 4th ed, Wiley, 2020
2. Chemdraw - can be obtained for free through our school site license - <https://informatics.perkinelmer.com/sitesubscription/>
3. Molecular Model Kit
4. Organic Chemistry as a 2nd language, Klein, 4th Ed, Wiley 2016
5. Other organic textbooks

Instruction Method: Each session will consist of a mixture of lecture and a practice problem solving session. The lectures will be recorded and posted to Panopto for future viewing. There will be several asynchronous sessions throughout the semester which will have a pre-recorded lecture to watch.

Exams and Grading: There will be 3 exams throughout the summer. The third exam will be longer and will consist of roughly $\frac{2}{3}$ newer material, $\frac{1}{3}$ cumulative. There will also be 12 quizzes throughout the semester which can be repeated as many times as you would like by the deadline. The final must be taken to pass the course. Your final score will be determined as follows:

Exam 1: 25%
Exam 2: 25%
Exam 3: 40%
Quiz 1-12: 10%

Grading Scale

Grade	Range
90+	A
86-90	A-
81-85	B+
76-80	B
71-75	B-
66-70	C+
61-65	C
56-60	C-
51-55	D+
46-50	D
0-45%	F

Academic Integrity

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/advising/academicintegritystatement/>

A basic mission of a university is to search for and to communicate the truth as it is honestly perceived. A genuine learning community cannot exist unless this demanding standard is a fundamental tenet of the intellectual life of the community. Students of Loyola University Chicago are expected to know, to respect, and to practice this standard of personal honesty.

Academic dishonesty can take several forms, including, but not limited to cheating, plagiarism, copying another student's work, and submitting false documents.

Any instance of dishonesty (including those detailed on the website provided above or in this syllabus) will be reported to The Chair of The Department of Chemistry & Biochemistry who will decide what the next steps may be. Evidence of cheating in this course will result in, at a minimum, a score of zero (which cannot be dropped from grade calculations) and penalty up to failure of the course. College policies include that instructors will report incidents of academic misconduct to their chairperson as well as to the Assistant Dean for Student Academic Affairs in the CAS Dean's Office. .

Course/Instructor Evaluation – SmartEval

The following information came from the University regarding course evaluations:

“Towards the end of the course, the students will receive an email from the Office of Institutional Effectiveness reminding them to provide feedback on the course. They will receive consistent reminders throughout the period when the evaluation is open, and the reminders will stop once they have completed the evaluation.

-The evaluation is completely anonymous. When the results are released, instructors and departments will not be able to tell which student provided the individual feedback.

-Because it is anonymous and the results are not released to faculty or departments until after grades have been submitted, the feedback will not impact a student's grade.

-The feedback is important so that the instructor can gain insight into how to improve their teaching and the department can learn how best to shape the curriculum.”

Course Repeat Rule

Effective with the Fall 2017 semester, students are allowed only THREE attempts to pass Chemistry courses with a C- or better grade. The three attempts include withdrawals (W). After the second attempt, the student must secure approval for a third attempt. Students must come to the Chemistry Department, fill out a permission to register form or print it from the Department of Chemistry & Biochemistry website: <https://www.luc.edu/chemistry/forms/> and personally meet and obtain a signature from either the Undergraduate Program Director, Assistant Chairperson, or Chairperson in Chemistry. A copy of this form is then taken to your Academic Advisor in Sullivan to secure final permission for the attempt.

Accessibility and accommodations

The Student Accessibility Center (formerly known as Services for Students with Disabilities), Sullivan Center (773-508-3700), <http://www.luc.edu/sac>, has the mission “to support, service, and empower Loyola University Chicago students with disabilities” and to “Partner with faculty and staff to provide opportunities for collaboration, professional development, personal growth, and staff interaction, as they relate to students with disabilities.” Please direct all questions concerning accommodations of disabilities to the Student Accessibility Center. Academic accommodations afforded to students require documentation and review. The Student Accessibility Center will issue accommodation letters for registered students to present to their instructors.

Accommodations are not active until students present these letters to their instructors. If students' accommodations involve attendance or deadlines, instructors and students will jointly complete and execute an Agreement Form articulating their terms. See <https://www.luc.edu/sac/faculty/facilitatingaccommodations/> for guidance about implementing various kinds of accommodations in a way that is appropriate to your class. The Student Accessibility Center stands ready to work with you.

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/>

Loyola University Absence Policy for Students in Co-Curricular Activities (including ROTC)

Students missing classes while representing Loyola University Chicago in an official capacity (e.g. intercollegiate athletics, debate team, model government organization) shall be allowed by the faculty member of record to make up any assignments and to receive notes or other written information distributed in the missed classes.

Students should discuss with faculty the potential consequences of missing lectures and the ways in which they can be remedied. Students must provide their instructors with proper documentation (develop standard form on web) describing the reason for and date of the absence.

This documentation must be signed by an appropriate faculty or staff member, and it must be provided as far in advance of the absence as possible. It is the responsibility of the student to make up any assignments. If the student misses an examination, the instructor is required to give the student the opportunity to take the examination at another time.

(<https://www.luc.edu/athleteadvising/attendance.shtml>)

Accommodations for Religious Reasons

If you have observances of religious holidays that will cause you to miss class or otherwise effect your performance in the class you must alert the instructor **within 10 calendar days of the first class meeting of the semester** to request special accommodations, which will be handled on a case by case basis.

Important Note on Classroom Recordings

In this class software will be used to record live class discussions. As a student in this class, your participation in live class discussions will be recorded. These recordings will be made available only to students enrolled in the class, to assist those who cannot attend the live session or to serve as a resource for those who would like to review content that was presented. All recordings will become unavailable to students in the class when the Sakai course is unpublished (i.e. shortly after the course ends, per the [Sakai administrative schedule](#)). Students who prefer to participate via audio only will be allowed to disable their video camera so only audio will be captured. Please discuss this option with your instructor.

The use of all video recordings will be in keeping with the University Privacy Statement shown below:

Privacy Statement

Assuring privacy among faculty and students engaged in online and face-to-face instructional activities helps promote open and robust conversations and mitigates concerns that comments made within the context of the class will be shared beyond the classroom. As such, recordings of instructional activities occurring in online or face-to-face classes may be used solely for internal class purposes by the faculty member and students registered for the course, and only during the period in which the course is offered. Students will be informed of such recordings by a statement in the syllabus for the course in which they will be recorded. Instructors who wish to make subsequent use of recordings that include student activity may do so only with informed written consent of the students involved or if all student activity is removed from the recording. Recordings including student activity that have been initiated by the instructor may be retained by the instructor only for individual use.

Proposed Semester Activities and Schedule

Please note, the topic/dates may change as the semester progresses depending on student progress and class discussion.

May 23	Quiz 1 , Review of General Chemistry/Structures	Chapter 1/2
May 25	Quiz 2 , Molecular Representations/Acids and Bases	Chapter 2/3
May 27	Quiz 3 , Alkanes and Cycloalkanes	Chapter 4
May 30	Memorial Day Observed, No Class - Quiz 4 , Asynchronous lecture on IR spec	Chapter 14
June 1	Quiz 4 , Stereoisomerism	Chapter 5
Jun 3	Exam 1 (Material through May 30, Chap 1-4)	
Jun 6	Quiz 5 , Chemical Reactivity and Mechanisms	Chapter 6
Jun 8	Quiz 6 + Nucleophilic Substitution and Eliminations Rxns	Chapter 7
Jun 10	Quiz 7, Asynchronous Lecture - Alkene Additions	Chapter 8
Jun 13	Quiz 8 , Alkenes/Alkynes	Chapter 8/9
Jun 15	Quiz 9 , Radicals	Chapter 10
Jun 17	Juneteenth Observed, no class - Asynchronous Lecture on Radicals/Synthesis	Chapter 10/11
Jun 20	Exam 2 (Material through Jun 13, Chap 5-8)	
Jun 22	Quiz 10 , Alcohols and Phenols	Chapter 12
Jun 24	Quiz 11 , Alcohols and Phenols	Chapter 12/13
Jun 27	Quiz 12 , Ethers and Epoxides	Chapter 13
Jun 29	Review	Review
Jul 1	Exam 3 (Cumulative)	Final Exam