

Syllabus – Organic Chemistry B

The purpose of this syllabus is to describe the course, resources, and policies. It is meant to help all students understand the expectations and requirements for the course, and it should be used as a reference for questions about policies. When updates to the syllabus are made during the term, a new version will be posted electronically, and all students will be notified.

Course Information

Course: Chemistry 224 – Organic Chemistry B (3 credits: Lecture & Discussion)

Prerequisites: Completion of Chemistry 223 or equivalent with a grade of C- or better. A student missing a prerequisite may be withdrawn at any time.

Time Zone: This syllabus lists dates/times using Chicago local time (U.S. Central Time Zone)

In-Person Learning: All graded assignments scheduled during class time are available in class only.

Lectures: Tu/Th 11:30-12:30 LSB 142

Discussions: You must attend the section for which you registered:

- W 11:30am -12:20 pm FH-007
- W 12:35-1:25 pm FH 007

Course Coordinator: Dr. James Devery (jdevery@luc.edu)

Chemistry 224 is a multi-section lecture & discussion course with common content and common outcomes across all sections. This course includes a Common Final Exam during the Common Final Exam Period as scheduled by the University. This Exam will be cumulative for both semesters of Organic Chemistry. The Course Coordinator is responsible for consultation and coordination with instructors regarding policies, exam writing, and grading. Your Section Instructor is responsible for communicating with you regarding all course content and policies and is the first and primary person you should contact questions about all aspects of the course. As needed, all Section Instructors will consult with the Course Coordinator throughout the semester.

Section Instructor: Dr. Polina Pine, PhD

Instructor Contact Information

Office: 403

Email: ppine@luc.edu

Email timing: see **Interaction with the professor and the classmates** section for details.

Office Hours Policy: Students must wear masks over the mouth and nose.

Office Hours Schedule: Due to the very limited shared office space some of the Office Hours will be scheduled in alternative spaces; students must make an appointment through SAKAI only (the guidance for scheduling the appointment will be published on Sakai/Signup). Due to very limited shared office space students might not be accommodated if showed up in the office without special appointment through Sakai. Tuesdays 10:00-11:00am in FH 403. Fridays 10:30-11:30 am in FH-129. Friday OH may be moved to FH-403 (please follow the in-class announcements for changes of the location).

SI information

There are Supplemental Instruction (SI) study sessions available for this course. SI sessions are led by Pranshu Punjani ppunjani@luc.edu SI leader, who is a student that has recently excelled in the course. Session attendance is open to all, and while it is voluntary, it is extremely beneficial for those who attend weekly. Times and locations for the SI session can be found here: www.luc.edu/tutoring. Students who attend these interactive sessions find themselves working with peers as they compare notes, demonstrate, and discuss pertinent problems and concepts, and share study and test-taking strategies. Research shows students who regularly attend sessions have higher grades at the end-of-the-semester and more deeply understand course concepts than those who do not. Students are asked to arrive with their Loyola ID number, lecture notes, and textbook.

Required Course Materials

- Textbook: eText via WileyPlus and/or hard copy: Organic Chemistry, Klein, David, 4th edition.
- WileyPlus our Quiz tool and online tool for the above textbook (Required and is comprised in the final grade calculation)- included in the textbook Package Options given bellow, no additional payment is

needed. The flyer with the courseID is uploaded on Sakai under Resources. Follow the flyer ONLY to enroll to your section. Contact [Wiley Support](#) with any technical or enrollment questions.

- Loyola Sakai course management site: sakai.luc.edu/portal/ and tools integrated into the site.
- Loyola email: messages/announcements are sent to the entire class via Sakai, linked to your Loyola email account
- Free access to <http://www.Gradescope.com> and mobile App **Gradescope** installed on your smartphone/tablet. Students are automatically registered on the platform (no need to enroll).
- Certain assignments/assessments may utilize other internet or electronic platforms free of charge for students.
- Green Pen

Recommended Course Materials:

1. Student Study Guide and Solutions Manual, Klein, 4th ed. Wiley
2. Molecular modeling kit, Darling, Duluth, or equivalent - bring to each class (CH3-CH5)
3. Organic Chemistry as a Second Language: First Semester Topics, 4E ed. (or earlier), Klein, 2017, Wiley (ISBN: 978-1-119-11066-8 (PBK)) (Extremely Highly Recommended)

Copyright/Intellectual Property reminder: Course materials provided by your instructors at Loyola, including my materials, may not be shared outside any course without the instructor's **written permission**. Content posted without permission will be in violation of Copyright/Intellectual Property laws.

Course Content & Learning Outcomes

Prerequisite knowledge from Chemistry 223 is necessary for in-depth study of topics in Chemistry 224. Topics will include: nomenclature, structures, properties, reactions, mechanisms, spectroscopy, and syntheses of arenes, carbonyls, carboxyls, amines, carbohydrates, lipids, and amino acids. If successful, the student will be able to:

1. identify the various classes of organic compounds, their methods of preparation, and typical reactions.
2. name and draw specific organic compounds.
3. visualize and interpret multiple representations of organic molecules depicting connectivity, configuration, and conformations.
4. postulate logical reaction mechanisms for organic reactions.
5. discriminate among relative stabilities of reactive intermediates.
6. plan and write out single and multi-step syntheses using known reagents and conditions.
7. identify and compare general physical properties of organic compounds.
8. analyze, interpret, and predict spectral data (MS, IR, NMR) used in identifying organic compounds.
9. describe and analyze how organic chemistry affects the way we live and die.

Interaction with the professor and the classmates:

- Only positive, respectful behavior is tolerated in this class. Please see Harassment (Bias) section at the end of the document. If any not respectful behavior of any student towards other students or instructors is observed, it will be reported. Please keep all interaction (online and offline) respectful and professional.
- Any specific questions regarding problem solving, lecture clarifications may not be answered over email. Please utilize peer forum (discussion) on Sakai and our office hours.
- Students are expected to interact, ask each other, and answer questions in the Forum (Discussion) on Sakai. This activity is recorded, graded, and is included in the final grade (please see the Grading Scale for details).
- To contact Dr. Pine during the semester by email use email option on Sakai or put CHEM224 in the Subject field. If email is sent without this specific subject, it may be sent to a SPAM folder and/or overlooked. If your email has not been answered over email over 48 hours during the business days or in class do the following:
 1. Ask it before/after class meeting.
 2. Check if you sent it with CHEM224 in the subject field (if not, please resend following the proper format).
- All emails will be answered within at least 48 hours window during business days. No email interaction aside the business hours. Emails are not answered during weekends, breaks, and holidays.

Structure of the class:

- **Absolutely no** to any type of electronic communication during Lectures/Discussions. If you have an emergency communication, please let Dr. Pine know right before the class starts.
- **Absolutely no** to using phones or/and smart watches, computers, tablets during the class time. All these devices must be kept in the bag.
- Using of tablets or computers will be allowed only for planned in class activities and will be announced by the instructor (special policies will be applied).
- **Students may not record, or take pictures in the classroom** on any device and any app. For example: you are not allowed to use recording functionality in Notability app. Exceptions are listed in the **Student Accommodations** section in this document below.
- Make-ups, retakes, late or early assignments and work are not available in this class. The flexibility that takes into account personal and global unforeseen circumstances are already embedded in the grading scale.
- Discussion-meetings will be in the form of individual and group work. Students MUST come prepared (practice textbook questions before coming to class) to participate in a verbal and non-verbal form. Usually, no material is allowed to be used during the Discussion-meeting activities, hence all students must review the lecture material, before coming to the class. Almost every discussion-meeting will be concluded with the graded submission. We are not using note taking devices in the Discussion.
- Discussion-meetings activities if collected will be collected during the scheduled Discussions ONLY without announcement in advance, through the Gradescope only, in a group submission only (students must add their group members from the list on the Gradescope), in the announced format only, without notifications. If collected will be graded. These points will contribute to participation category of the total grade. The points are granted ONLY if the submitting student attends the scheduled meeting and follows all the directions and formats. Failure to submit due to any technology difficulty will not be a reason for resubmission or any points. If a student missed the Discussion/submission due to sickness, work, family reasons, or other catastrophic event up to two missed submissions will be a drop (no late submissions are allowed).
- Sakai Forum (Discussion) is a *peer-to-peer communication platform* designed to connect students together to accelerate student-to-student support. Please feel free to post any summary, answer or question related to any topic of the class including any policy, time, Syllabus, end-of-chapter. Included in the overall grade under Participation category.
- If you miss a class for any reason, make sure to contact your classmates on Sakai/Forum to get an update.
- It is critical to study organic chemistry with solving all assigned problems from the back of each chapter independently on one's own. The list of problem sets per chapter will be uploaded on Sakai.
- Please remember, mutual support and understanding (students-student, professor-students and last but not least student-professor) is a KEY to success in a class and life in general. Please be kind, understanding and supportive. I cannot obligate but I encourage everyone to share their lecture notes if a person who misses the class is asking for help.
- Use specific, separate notebook or notetaking app to keep track of the questions that rise.
- Exam Days: Please prepare and use during the Exams your ID, pencils, and erasers only, all bags, jackets and other personal belongings must be placed under the whiteboard in front of the class at least 5 minutes before the scheduled exam. No devices, no smartwatches are allowed. The format of each exam will be announced during the lecture before the exam in class in-person meeting only. No personal email about the format of the exam may be answered, please address them during in person meetings and discuss them before the exam on Sakai/Forum. Students must read carefully (it is student's responsibility to read and know) all directions related to the exam procedure given in the Syllabus or sent before the exam. Not following the direction, not reading the directions, missing the direction will not be tolerated.
- After the Exam: After the exam is submitted, please do not return to your sit, exit quietly the classroom. No communication about the exam in any part of the Sakai/Forum (Discussion). Issues with graded exams must be submitted during one calendar day of being returned or as instructed by Dr. Pine in the meeting the exams are returned, otherwise scores will be considered final.
- Students with the time extension (SAC students) may take their exam ONLY at the SAC center and ONLY during the time that overlaps with the time and the date of the scheduled exam in the following way: start your exam half an hour before the time of your lecture) during the scheduled day for the test).

Student Accommodations

Loyola University provides reasonable accommodations for students with disabilities. Any student requesting accommodations related to a disability or other condition is required to register with Student Accessibility Center (SAC), located in Sullivan Center, Suite 117. Professors receive the accommodation notification from SAC via Accommodate. Students are encouraged to meet with their professor individually in order to discuss their accommodations. All information will remain confidential. Please note that in this class, software may be used to record class lectures in order to provide equal access to students with disabilities. Students approved for this accommodation use recordings for their personal study only and recordings may not be shared with other people or used in any way against the faculty member, other lecturers, or students whose classroom comments are recorded as part of the class activity. Recordings are deleted at the end of the semester. For more information about registering with SAC or questions about accommodations, please contact SAC at 773-508-3700 or SAC@luc.edu.

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). The Department advises that it is preferable to complete a course with a grade of C or C-, and to demonstrate growth in future coursework, than to withdraw from a course.

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.

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:

<https://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, submitting false documents, and deliberately disrupting the performance of other class members.

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. I will report incidents to the Chemistry & Biochemistry Department for further action(s).

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 i.e., "[Athletic Competition & Travel Letter](#)" 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 to the professor in the first week of a semester. It is the responsibility of the student to make up any assignments. If the student misses an examination, the instructor is required to allow the student to take the examination at another time.

<https://www.luc.edu/athletheadvising/attendance.shtml>

Students who will miss class for an academic competition or conference must provide proper documentation to their instructor as early in the semester as possible.

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.

Other Items

- A link to the official Loyola calendar can be found here: <https://www.luc.edu/academics/schedules/>
- The Withdraw deadline for the semester is on Monday, March 27.
- Loyola is using SmartEvals to provide instructor & course feedback. OIE will send emails near the end of the term.

Class Recording & Content Information

In general lecture, meetings may be recorded. The following is a mandatory statement for all courses in the College of Arts & Sciences (CAS). We will discuss class norms and standards during the first week and continue the discussion as needed throughout the semester.

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.

Additional Content, Copyright & Intellectual Property Statement

By default, students may not share any course content outside the class without the informed written consent of the owner of that content. This includes any additional recordings posted by students, materials provided by the instructor, and publisher-provided materials. For example, lectures, quiz/exam questions, book figures/slides, and videos may not be shared online outside the class. In some cases, copyright/IP violations may overlap with breaches of academic integrity. Remember that obtaining consent to share materials is an active process.

Pass/Fail Conversion Deadlines and Audit Policy

A student may request to convert a course into or out of the "Pass/No-Pass" or "Audit" status only within the first two weeks of the semester. For the Spring 2023 semester, students are able to convert a class to "Pass/No-Pass" or "Audit" through Monday, January 30th. Students must submit a request for Pass/No-Pass or Audit to their Academic Advisor.

Health, Safety, and Well-Being On-Campus

Please be familiar with and adhere to all guidelines posted on the *Heath, Safety, and Well-Being Update* site: (<https://www.luc.edu/healthsafetyandwellbeing/>.) This site relays important updates and protocols related to COVID-19 and other matters.

Spring 2023 Classroom Masking Policy

Although the University does not require masking, it is a principle of this class-section that, out of respect for the health of housemates and others in regular contact with members of our community, in this class we wear masks over nose and mouth at all times we are together in FH403, the office hours or for clarification questions before or after the lectures/discussions. Intransigent non-compliance may be reported to the Office of Student Conduct & Conflict Resolution.

Final Exam

The University sets the schedule for all final exams. The final will be held on:

Wednesday May 3rd, 7:00pm

Location will be updated on LOCUS when available.

You will have exactly 2 hours to complete the exam. Additional time will not be granted, even if you start late. There will be no make-up final exams given under any circumstance, and the exam will not be given early, either.

Instructors may not reschedule final exams for a class for another day and/or time during the final exam period. There can be no divergence from the posted schedule of dates for final exams. Individual students who have four (4) final examinations scheduled for the same date may request to have one of those exams rescheduled. If a student reports having four final examinations scheduled for the same date, students should be directed to e-mail a petition to Adam Patricoski, Assistant Dean for Student Academic Affairs, CAS Dean's Office (apatricoski@luc.edu).

Universal Absence Accommodation Policy

The purpose of a universal absence accommodation policy is to account for emergency circumstances (e.g., serious illness, caring for a family member, car accident) that require you to be absent from class, while maintaining fairness in grading for students who attend and complete all in-class graded assignments. We believe that class attendance and participation are essential for your success in this class, and that your health is important to us and our shared community. Please use good judgement and stay home if necessary/prudent for your circumstances.

This is the universal accommodation policy for in-class graded assignments:

There are no make-up assignments provided in this class. One missed in-class exam due to absence for any reason is already accommodated in the course grading system. Given that only the best two in-class exams are included in this calculation, a missed exam would be the one not included in this calculation, as it would be the lowest score (0%) of the three exams. If one additional exam is missed due to emergency circumstances, this second exam may be substituted with the final exam grade (meaning the final exam grade will be worth more). This special accommodation may be applied only if the student provides documented evidence within 1 day before/after the scheduled exam and if at least one unit exam was taken prior to the W-date. Missed exams cannot be taken in a different time or different day.

Course Grading System

The standards for each letter grade are listed here according to all required course components. Each student will receive a midterm grade via LOCUS at least one week prior to the Withdraw deadline for the semester. Grades are only based on the criteria listed in the syllabus: no substitutions, and no additions.

Grading Scheme (Modify highlighted as needed)

Participation	10%
WileyPlus Quizzes	10%
Two Best of three Unit Exams	50%
<u>Final Exam</u>	<u>30%</u>
Total score	100%

*the final exam is mandatory to earn a passing grade

Letter Grade Cutoffs*:

A	90.0%	C+	65.0%
A-	85.0%	C	60.0%
B+	80.0%	C-	55.0%
B	75.0%	D	40.0%
B-	70.0%	F	< 40%

Participation:

Will have several components and graded in points. At the end of the semester all these points are converted to the percentages and weighted into overall score. Example: if there were 30 total points available in this class and a student earned 28 points the Participation contribution will be calculated as following: $(28/30 \cdot 100) \cdot 0.1$ added to the rest of the categories weighted as per grading scale.

- Graded in-class Discussion activities

- Sakai/Discussion (Forum): graded weekly. There are two options only for Forum grading 0 and 1. A student is required to post at *least one time* a week in the forum, each weekly participation will grant 1 point per week (*posting more than 1 time is encouraged but will not grant additional points*). Additional Forum activities if assigned will be announced in class or through Sakai/Announcements or Sakai/Discussions and will grant additional participation points. Please follow Forum etiquette policies on Sakai under Syllabus.
- Additional announced group and individual activities.

WileyPlus Quizzes

Taken online outside of the class time. Will be announced at least two days in advance. The points of each quiz will be converted to percentage, this percentages will be averaged at the end of the semester and weighted into overall score. Example for n-number of quizzes: $((9/10+12/15+23/30+...)*100/n)*0.1$ plus the rest of the categories weighted as per grading scale. One lowest quiz score is a drop. No make-ups no late/early quizzes. Missed quiz is scored as zero (will be the only drop).

Unit Exams:

There will be three 50 minutes unit-exams on Thursdays: February 9th, March 16th, April 13th.

Changes to Syllabus

There may be changes to the syllabus during the semester. ***You are responsible for all syllabus changes made in class whether or not you attend.***

Course Topics

Chapter 15: NMR

Chapter 16: Conjugated Systems & Pericyclic Reactions

Chapter 17: Aromatic Compounds

Chapter 18: Aromatic Substitution Reactions

Chapter 19: Aldehydes and Ketones

Chapter 20: Carboxylic Acids & Derivatives

Chapter 21: α -Carbon Chemistry

Chapter 22: Amines

Chapter 24: Carbohydrates

Chapter 25: Amino Acids

Chapter 26: Lipids