

## 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 A student missing a prerequisite may be withdrawn at any time.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/Online Learning:** All graded assignments scheduled during class time are available in class only.

**Lectures:** MWF 8:20-11:10 am online (see Zoom link in Sakai)

**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 Final Exam during the 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 with 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

**Email:** ppine@luc.edu

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

**Office Hours Schedule:** Stay connected to Zoom after class to attend office hours

### Required Course Materials

- Printer
- Mobil device with working camera
- Windows or Mac computer with the latest operating system. Windows 10S or 11S is not a compatible operating system. Mac: macOS 12 and higher. The following **will not be** compatible: Chromebook, iPad, Android devices and any other devices. Note: You must contact the IT (not the Professor) if you have any software or hardware difficulty.
- Webcam (external or built-in in the device), earphones, microphone.
- Textbook: eText via [WileyPlus](#) and/or hard copy: Organic Chemistry, Klein, David, 4th edition.
- Student Study Guide and Solutions Manual, Klein, 4<sup>th</sup> ed. Wiley
- WileyPlus is our Quiz, reading and video 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. Make sure, you are registered with your name and not your parent's name. Contact [Wiley Support](#) with any technical or enrollment questions.
- Loyola Sakai course management site: [sakai.luc.edu/portal/](http://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>  
Students registered for class 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.

**Recommended Course Materials:**

1. Molecular modeling kit, Darling, Duluth, or equivalent - bring to each class (CH3-CH5)
2. Organic Chemistry as a Second Language: Second Semester Topics, 4E ed. (or earlier), Klein, 2017, Wiley (ISBN: 978-1-119-11066-8 (PBK))

**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. In addition, sharing any material outside of the class is considered academic dishonesty.

**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-morning** or **CHEM224-003** 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:**

- Students may not record, or take pictures of the class 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 considers personal and global unforeseen circumstances is already embedded in the grading scale.
- Please turn on your camera at the start of class and keep it on during the class. You will be able to turn it off during breaks.
- Students **MUST** practice textbook questions before coming to class and come prepared to participate in a verbal and non-verbal form. Some activities during the class will not allow using any material, hence all students must review the lecture and textbook, before coming to the class.

- Some meetings will be concluded with the graded submission without announcement in advance, which may be uploaded to the Gardescope during indicated class period only. The submissions will be accepted and valid only if submitted in the announced format. 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 or rushing and forgetting will not be a reason for resubmission or any points. If a student missed the submission due to sickness, work, family reasons, or other catastrophic event up to two missed participation points will be a drop. Late submissions may not be granted for any reason.
- If you miss a class for any reason, make sure to contact your classmates on Sakai/Forum to get an update.
- Sakai Forum/Discussions is designed to connect students together and accelerate peer-to-peer support. Forum will be graded weekly. Students must post and READ the Forum/Discussions. All weekly posts are due on Sunday 11:59pm (no extension may be given). 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.
- Students must collect questions related to the material and ask them during synchronous meetings, office hours and peer-to-peer Forum.
- Use specific, separate notebook or notetaking app to keep track of the questions that rise to ask them during the session.
- 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.

#### EXAMS:

- There will be two unit-exams on Mondays July 17<sup>th</sup>, July 31<sup>st</sup> right at the beginning of the scheduled time class.
- All Exams are closed book, closed notes, closed Internet, closed WileyPlus. Absolutely no help on the exams may be accepted or given. Absolutely no material may be used except for pencil, eraser and any additional PRINTED material which will be announced before the exam. Make sure you have access to the printer and scanner before you start your exam. No scratch paper is allowed. Students MAY NOT use any note taking devices during the exam, may not text, may not talk and may not use earphones during the exams.
- Students will be expected to follow the policies of Academic Integrity and may be asked to sign Honor Pledge of academic honesty. If any violation or any unauthorized internet activity is detected it will be reported and automatic F-grade will be assigned for the class. See Academic Dishonesty Statement given below.
- There are two 50 minutes unit exams (additional 10 minutes on the exams that do not exceed 60 minutes scheduled slot may be granted for all students to encounter for technical problems such as frozen browser, unexpected internet problems, not working printer or other unexpected issues if and only if a student prepared for the exam and follows all the announcements and policies).
- The exams are timed and proctored. Your mobile device will be used as a secondary camera for proctoring. Please prepare to take the exam ahead of time. You may not leave a room or/and a computer and video proctoring during the exam before finished.
- Students with the time extension (SAC students) **must be proctored by SAC 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). **Testing must be scheduled with SAC 7 days prior to 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](mailto: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/athleteadvising/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 Friday, August 4<sup>th</sup>.
- 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 a specific period. For the Summer 2023 semester, students can convert a class to "Pass/No-Pass" or "Audit" through Monday, July 10<sup>th</sup>. 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 *Health, 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.

**Final Exam**

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

Friday, August 11<sup>th</sup>, at the beginning of the scheduled class period

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.

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](mailto: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 alternative personal times for any type of work and assignments provided in this class.

### 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 (4 best out of 5)	20%
Unit Exams*	40%
Final Exam**	30%
Total score	100%

\* No drops, however in case of a serious emergency that rises 1 hour before the unit exam one unit exam may be a drop. Documented evidence must be presented within 24 hours of the emergency.

\*\*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:  $(28/30 \times 100) \times 0.1$  added to the rest of the categories weighted as per grading scale.

- Graded in-class activities.
- Sakai/Discussion (Forum): graded weekly. There are two options only for Forum post grading 0 and 1. A student is required to read all the posts before posting and post at *least 3 times* a week in the forum, each weakly participation will grant 3 point per week (1 point per post). *Posting more than 3 times 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

Timed and taken online during the class time on Wednesdays. 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:  $((9/10 + 12/15 + 23/30 + \dots) \times 100/n) \times 0.2$  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 two 50+10 minutes unit-exams on Mondays July 17<sup>th</sup>, July 31<sup>st</sup> right at the beginning of the scheduled time class.

### 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:  $\alpha$ -Carbon Chemistry

Chapter 22: Amines

Chapter 24: Carbohydrates

Chapter 25: Amino Acids

Chapter 26: Lipids