

## Syllabus – Organic Chemistry I

### Course Information

Chemistry 223 – Organic Chemistry I

Instructor: Dr. James Devery

Office: 215 Flanner Hall

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### Weekly Schedule

Lecture: Monday & Wednesday 4:15 PM – 5:30 PM in Flanner Hall – Auditorium

Discussion: (020) Monday 5:45 PM – 6:35 PM in Flanner Hall – Auditorium

(021) Wednesday 2:45 PM – 3:35 PM in Flanner Hall – Room 105

### Office Hours

Monday 2:00 PM – 3:00 PM; Tuesday 4:00 PM – 5:00 PM; Thursday 4:00 PM – 5:00 PM

### Email

You must use your Loyola email address for all official communication during this course, especially official communication regarding grades. Emails from outside sources can be blocked by spam filters.

### Course Description

*CHEM 223 is a lecture and discussion course for non-chemistry majors surveying nomenclature, structures, properties, stereochemistry, reactions, mechanisms, and syntheses of aliphatic hydrocarbons, alkyl halides, alcohols, and ethers.*

*Outcome: Students will identify classes of organic compounds and typical reactions, discriminate amongst intermediate stabilities, postulate reaction mechanisms, plan multi-step syntheses, and analyze/interpret spectroscopic data.*

### Textbook and Additional Course Materials

Textbook: Organic Chemistry (3<sup>rd</sup> Edition)

Authors: David Klein

Publisher: John Wiley & Sons

Molecular Model Kit: Molecular Visions Organic Model Kit (#3) or Preferred Kit

Website: wileyplus.com and sakai.luc.edu. (A Subreddit is incoming)

### Grading

5 Quizzes (20 points)	100	10%
3 Midterm Exams (200 points)	600	45%
1 Final Exam (250 points)	250	25%
Total	1000	100%

### Quizzes

There are **seven** quizzes offered during the semester. They will be given during the Discussion Sections on the dates listed below. The quizzes will be worth 20 points each. *The **two** lowest scored quizzes will be dropped. **THERE ARE NO MAKEUP QUIZZES.*** If you miss one quiz, it will be dropped, leaving 1 additional drop.

**Quiz Dates:**

(020) Sept. 9, Sept. 16, Sept. 23, Oct. 14, Nov. 4, Nov. 11, Dec. 2.

(021) Sept. 4, Sept. 11, Sept. 18, Oct. 16, Nov. 6, Nov. 13, Dec. 4.

Midterm Exams

There are **three** midterm exams during the semester on the dates listed below. The midterm exams cover lecture topics and will be held during the Lecture. EVERY EXAM COUNTS.

**Midterm Exam Dates:** September 25, October 23, November 18

Final Exam

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

**Monday, December 9 at 4:15-6:15 PM**

in **Flanner Hall Auditorium**. You will have exactly 2 hours to complete the exam. Additional time will not be granted, even if you arrive 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).

**The final exam is cumulative.** All topics discussed during the semester are on the final.

Final Grades

A guideline for grades is shown below. At minimum, you will receive the grade indicated.

A = 93–100%

C+ = 68-72%

A– = 88–92%

C = 63-67%

B+ = 83–87%

C– = 58-62%

B = 78–82%

D = 50-57%

B– = 73–77%

F = 0-49%

**Student Accommodations**

If you have any special needs, please let me know in the first week of classes. The university provides services for students with disabilities. Any student who would like to use any of these university services should contact the Student Accessibility Center (SAC), Sullivan Center, (773) 508-3700. Further information is available at <http://www.luc.edu/sac/>.

**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:** You must make Devery aware of your request by **Friday, August 30**. Alternative exam times will be arranged ONLY if Devery is notified before this date.

**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/athletheadvising/attendance.shtml>)

### **Excused Absences for Exams**

Missed exams will be handled on a case-by-case basis. If you miss an exam because of an illness, death in the family, or any other extenuating circumstance, you must provide written evidence (i.e.- note from doctor, etc.). Once approved, an alternative exam date and time will be assigned. If you miss the final exam with no prior notice, you will receive a zero on the exam.

### **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. **(please specify what the punishments will be for transgressions).**

### **Dropping and Withdrawal**

Be aware of the following dates in the semester:

September 3: Last day to withdraw without a "W" grade

September 8: Last day to withdraw with a 100% Bursar credit

September 22: Last day to withdraw with a 50% Bursar credit

September 29: Last day to withdraw with a 20% Bursar credit

November 1: Last day to withdraw with a "W" grade, thereafter a "WF" will be assigned

### **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: <http://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.

## **Class time**

### **Lecture**

Important! Feel free to bring your books and modeling kit to class **AND USE THEM**. Prepare for lecture by scanning the textbook. Lectures will be the *most critical source* of information for this course. Remember, any questions not addressed during lecture can be addressed during discussion. You are responsible for all material covered in lecture. If you miss a lecture, please get the notes from another student in class.

### **Discussion**

The discussion section will develop your problem-solving skills through working problems and taking quizzes. Come prepared for discussion. Be ready to ask questions on lecture concepts, textbook problems, previous quizzes, or previous exams. *No one will be admitted into the room once the quiz has begun.*

**Study Strategies and Suggestions:** You can approach Organic Chemistry in a manner similar to studying a foreign language. Every topic you learn impacts the next topic. Because the material continues to build in complexity, practice is the best way to learn the material. Practice is done by working problems. Honest collaboration is encouraged. Experience dictates that positive outcomes (for exam and course grades) are directly proportional to working and understanding the assigned problems on a regular basis, i.e., applying the concepts learned to non-generic situations. Typically, Organic Chemistry is not self-taught. Overnight cramming will probably not produce success. You should quickly read the chapter/section to be covered BEFORE lecture to improve lecture comprehension. After lecture, careful detailed re-reading of the chapter/section and focused attempts of the assigned problems are appropriate, necessary, essential, and expected. In addition to student's participation in lecture, discussion, reading, as well as homework, joining and contributing to a study group is strongly encouraged.

If you anticipate earning a C, the minimal time per week devoted to Organic Chemistry is estimated at 4 h for lecture and discussion, 4-10 h for reading, and 4-10 h for homework.

## **Textbook Problems**

Interactive assignments for each chapter are found in the Assignments tab in Wiley Plus.

## **Class Etiquette**

"...treat people the way they want to be treated..."

Come to class on time.

No talking.

Mute electronic devices.

No eating.

No sleeping.

Students with multiple violations of classroom etiquette will be subject to point deductions throughout the semester.

## **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.***

## **Tutoring**

Course tutor – **Emily Hodge**

The Center for Tutoring & Academic Excellence provides Loyola University students the opportunity to engage in Collaborative Learning conversations that will increase retention of course material, improve study habits, assist in achieving higher grades, and encounter new friends. For more information concerning our free tutoring services visit: [www.luc.edu/tutoring/](http://www.luc.edu/tutoring/)

**Course Topics**

Chapter 1: Review of General Chemistry

Chapter 2: Molecular Representations

Chapter 3: Acids and Bases

Chapter 4: Alkanes and Cycloalkanes

Chapter 5: Stereoisomerism

Chapter 7: Alkyl Halides: Nucleophilic Substitution and Elimination Reactions

Chapter 8: Addition Reactions of Alkenes

Chapter 9: Alkynes

Chapter 10: Radical Reactions

Chapter 11: Synthesis

Chapter 12: Alcohols and Phenols

Chapter 13: Ethers, Epoxides, and Thioethers

Chapter 14: Infrared Spectroscopy and Mass Spectrometry

Week	Date	Day	Chapter	Description
1	26-Aug	Mon	1+14	Gen Chem & MS
	28-Aug	Wed		
2	<b>2-Sep</b>	<b>Mon</b>		<b>Labor Day</b>
	4-Sep	Wed	2+14	Molecular Representations & IR
3	9-Sep	Mon		
	11-Sep	Wed	3	Acids & Bases
4	16-Sep	Mon	4	Alkanes & Cycloalkanes
	18-Sep	Wed	5	Stereoisomerism
5	23-Sep	Mon		
	<b>25-Sep</b>	<b>Wed</b>	<b>1,2,3,4,5,14</b>	<b>Exam 1</b>
6	30-Sep	Mon	6	Chemical Reactivity
	2-Oct	Wed		
7	<b>7-Oct</b>	<b>Mon</b>		<b>Break</b>
	9-Oct	Wed	7	Alkyl Halides
8	14-Oct	Mon		
	16-Oct	Wed	8	Alkenes
9	21-Oct	Mon		
	<b>23-Oct</b>	<b>Wed</b>	<b>6,7,8</b>	<b>Exam 2</b>
10	28-Oct	Mon	9	Alkynes
	30-Oct	Wed		
11	4-Nov	Mon	10	Radical Reactions
	6-Nov	Wed		
12	11-Nov	Mon	11	Synthesis
	13-Nov	Wed		
13	<b>18-Nov</b>	<b>Mon</b>	<b>9,10,11</b>	<b>Exam 3</b>
	20-Nov	Wed	12	Alcohols
14	25-Nov	Mon		
	<b>27-Nov</b>	<b>Wed</b>		<b>Thanksgiving</b>
15	2-Dec	Mon	13	Ethers
	4-Dec	Wed		
16	9-Dec	Mon	Cumulative	Final