

Syllabus – Physical Organic Chemistry

Course Instructor

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Weekly Schedule

Lecture: Tu/Th 4:15-5:30 PM in FH 105
Office Hours: M 4:00-5:00 PM

Email

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

Course Materials

Molecular Model Kit: Molecular Visions Organic Model Kit (#3) or Preferred Kit (option, but recommended)
Website: sakai.luc.edu

Grading

6 Problem Sets (50 points)	300	30%
2 Exams (200 points)	400	40%
Final Exam (300 points)	300	30%
Total	1000	100%

Problem Sets

Concepts will be introduced in lecture, and the Problem Sets will give you the opportunity to practice/prepare for the exams. You may work together on coming up with the solutions. You must turn in your own work.

Tentative Problem Set Due Dates: January 25, February 8, March 15, March 27, April 5, April 26

Midterm Exam

There are **two** midterm exams during the semester. They will cover lecture/discussion topics and will be held during the Lecture period.

Midterm Exam Dates: February 22, April 10

Final Exam

The final exam will take place on **Tuesday, May 1 at 4:15-6:15 PM.**

The final exam is cumulative. All topics discussed during lecture over the course of the semester are on the final.

Final Grades

Final grades will be given after combining both parts of this course. A guideline for grades is shown below. At minimum, you will receive the grade indicated.

A = 94–100%
A– = 89–93%
B+ = 86–88%
B = 81–85%
B– = 78–80%

C+ = 75–77%
C = 66–74%
C– = 63–65%
D = 51–62%
F = 0–50%

THERE ARE NO MAKE-UPS FOR ANY COURSE REQUIREMENTS. PLAN ACCORDINGLY

Class time

Lecture

Important! Feel free to bring any reference books or modeling kits to class AND USE THEM. Class periods will be the *most critical source* of information for this course. Remember, any questions not addressed during lecture can be addressed via office hours, email, or Twitter. If you miss a period, please get the notes from another student in class.

Class Etiquette

“...treat people the same way you want them to treat you...”

Come to class on time.

No talking during lecture.

Mute electronic devices.

No eating.

No sleeping.

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

Course Topics

- Molecular Bonding Theory
- Steric, Electronic, & Stereoelectronic Effects
- Baldwin's Rules
- Hard/Soft Acid/Base Theory
- Thermodynamics
- Conformational Analysis
- Transition State Theory
- Kinetics
- Pericyclic Reactions
- Noncovalent Interactions

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, that can be viewed at:

<http://luc.edu/media/lucedu/cas/pdfs/academicintegrity.pdf>

Anything you submit that is incorporated as part of your grade in this course (quiz, exam, etc.) must represent your own work. Any students caught cheating will, **at the very minimum**, receive a grade of “zero” for the item that was submitted and this grade cannot be dropped. If the cheating occurred during a course exam, the incident will be reported to the Chemistry Department Chair

and the Office of the CAS Dean. Depending on the seriousness of the incident, additional sanctions may be imposed.

Dropping and Withdrawal

Be aware of the following dates in the semester:

January 22: Last day to withdraw without a mark of a "W."

January 29: Last day to withdraw with a 100% Bursar credit

February 12: Last day to withdraw with a 50% Bursar credit

February 19: Last day to withdraw with a 20% Bursar credit

March 26: Last day to withdraw with a "W" grade, thereafter a "WF" will be assigned

Disabilities

Students with a university-documented disability should contact me immediately. If your disability requires that quizzes and exams be taken outside of the scheduled time or place, please consult: www.luc.edu/sswd/. Services for Students with Disabilities (SSWD) serves students with disabilities by creating and fostering an accessible learning environment.

Course/Instructor Evaluation – IDEA

Loyola has recently switched to the IDEA program for instructor and course evaluations. At the end of the semester, you will complete an online evaluation of this course based on criteria set by IDEA and by the instructor. For this course, the main objectives are as follows:

- 1) Gaining a basic understanding of the subject (e.g. factual knowledge, methods, principles, generalizations, theories).
- 2) Learning to apply course material (to improve thinking, problem solving, and decisions.
- 3) Learning how to find, evaluate, and use resources to explore a topic in depth.
- 4) Learning to analyze and critically evaluate ideas, arguments, and points of view.

Keep these objectives in mind throughout the course.

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.***

Week	Date	Day	Description
1	16-Jan	Tues.	Organic Review
	18-Jan	Thurs.	
2	23-Jan	Tues.	Bonding Theories
	25-Jan	Thurs.	
3	30-Jan	Tues.	Steric, electronic & stereoelectronic effects
	1-Feb	Thurs.	
4	6-Feb	Tues.	Baldwin's Rules, Hard/soft Acid-Base Theory, Thermodynamics
	8-Feb	Thurs.	
5	13-Feb	Tues.	Conformational Analysis
	15-Feb	Thurs.	
6	20-Feb	Tues.	Exam I
	22-Feb	Thurs.	
7	27-Feb	Tues.	Transition State Theory
	1-Mar	Thurs.	Rate Equations
8	Spring Break		
9	13-Mar	Tues.	Multi-Step Reactions
	15-Mar	Thurs.	
10	20-Mar	Tues.	Catalysis
	22-Mar	Thurs.	
11	27-Mar	Tues.	No Class
	29-Mar	Thurs.	
12	3-Apr	Tues.	Asymmetric Catalysis
	5-Apr	Thurs.	Other Tools
13	10-Apr	Tues.	Exam II
	12-Apr	Thurs.	Pericyclic Reactions
14	17-Apr	Tues.	
	19-Apr	Thurs.	
15	24-Apr	Tues.	Noncovalent Interactions
	26-Apr	Thurs.	