

Syllabus – Organic Chemistry II

Course Information

Chemistry 222 – Organic Chemistry II for Chemistry Majors

Instructor: Dr. Chad Eichman
Office: 203 Flanner Hall
Email: ceichman@luc.edu
Phone: 773.508.3357

Weekly Schedule

Lecture: Monday, Wednesday, Friday 2:45-3:35 PM in Flanner Hall 133

Discussion: Tuesday 1:00-2:15 PM in Cudahy Hall 202

Laboratory: Tuesday OR Thursday 2:30-5:15 PM in Life Science Building 115

Office Hours

Monday 4:00-5:00 PM

Tuesday 10:00-11:00 AM

Friday 10:30-11:30 AM

To schedule an alternative appointment, please email me.

Email

You must use your Loyola email address for all communication during this course. Emails from outside sources are often blocked automatically.

Course Description

"A lecture, discussion and laboratory course for chemistry majors continuing from 221 covering nomenclature, properties, reactions, syntheses, and spectroscopy of further classes of aliphatic and aromatic compounds, carbohydrates and other polyfunctional compounds.

Outcome: Students will be able to assign IUPAC names, spectroscopically identify, prepare, and propose reactions for these groups."

Textbook and Additional Course Materials

Textbook: Organic Chemistry (8th Edition)
Authors: L. G. Wade Jr.
Publisher: Prentice Hall
ISBN-10: 0-321-76841-8

Study Guide: MasteringChemistry

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

Lab Materials: Pearson Custom Laboratory Notebook
CHEM 226, Spring 2014 Edition; Pearson/ Prentice Hall.

Website: sakai.luc.edu

Grading

| | | |
|----------------------------------|------------|------------|
| 5 Quizzes (40 points) | 200 | 13.3% |
| 3 Midterm Exams (200 points) | 600 | 40% |
| 1 Final Exam (400 points) | 400 | 26.7% |
| <u>Laboratory Work and Exams</u> | <u>300</u> | <u>20%</u> |
| Total | 1500 | 100% |

Quizzes

There are **six** quizzes offered during the semester during the Discussion Section on the dates listed below. The quizzes will be worth 40 points each. *The lowest scored quiz will be dropped.* There are NO MAKEUP quizzes. If you miss one quiz, it will be dropped and the 5 remaining quizzes will be counted.

Quiz Dates: January 21, February 4, February 18, March 11, March 25, and April 8.

Midterm Exams

There are **three** midterm exams during the semester on the dates listed below. The midterm exams cover only lecture topics and will be held on Tuesdays during the Discussion Section. EACH EXAM COUNTS.

Midterm Exam Dates: February 11, March 18, and April 15.

Final Exam

The final exam will take place **1:00-3:00 PM on Thursday, May 2** in a location TBA. *The final exam is cumulative.* All topics discussed during lecture over the semester are on the final.

IMPORTANT: I must be made aware of any exam conflicts by **Friday, February 7**. I will arrange an alternative exam time ONLY if notified before this date.

Laboratory Work and Exams

The laboratory work will be graded as shown in the Lab Syllabus. The lab portion is worth 300 points, equaling 20% of your final grade.

Final Grades

A guideline for grades is shown below. At minimum, you will receive the grade indicated, however, if the class average is below ~70%, there may be a curved grading system.

A = 89-100%, B = 78-88%, C = 63-77%, D = 51-62%, F = 0-50%

Lecture, Discussion Section, and Reading

The class lectures will be the *most critical source* of information for this course. Because of this fact, please attempt to hold questions to a minimum during the lectures. If you miss a lecture, please find notes from another student in class.

The discussion section will develop your problem solving skills through working problems and taking quizzes. This time will also be dedicated to answering questions and clarifying any topic covered in lecture. The discussion section is **OPTIONAL** when there is not a quiz. However, quizzes will be distributed once all questions have been answered and *no one will be admitted into the room once the quiz has begun*.

Suggested reading assignments will be made throughout the semester. Do not expect to learn all of the course material through the textbook. As stated before, lectures are the best source of instruction for the course and reading assignments will serve to complement the lectures.

Problem Sets

There will be multiple problem sets throughout the semester to help you master the course material. The problems will include questions from the Wade textbook as well as additional problems pertaining to the current topics. These can be found on Sakai (sakai.luc.edu/) as the semester proceeds. We will use these problems as a basis for the Discussion Section. The problem sets will **NOT** be graded and are there to help you prepare for the quizzes and exams.

Class Etiquette

Come to class on time.
No talking.
No electronic devices.
No eating.

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

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://www.luc.edu/cas/pdfs/CAS_Academic_Integrity_Statement_December_07.pdf

Anything you submit that is incorporated as part of your grade in this course (quiz, exam, lab report, 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. Cheating on any lab material results in a 0/300 points for the lab portion of the course. 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 21: Last day to withdraw without a "W" grade

January 26: Last day to withdraw with a 100% Bursar credit

February 9: Last day to withdraw with a 50% Bursar credit

February 16: Last day to withdraw with a 20% Bursar credit

March 24: Last day to withdraw with a "W" grade, thereafter a "WF" will be assigned

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

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 encountering new friends. For more information concerning our free tutoring services visit: www.luc.edu/tutoring/

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 Topics

Chapter 14: Ethers, Epoxides and Thioethers

Chapter 15: Conjugated Systems, Orbital Symmetry, and Ultraviolet Spectroscopy

Chapter 16: Aromatic Compounds

Chapter 17: Reactions of Aromatic Compounds

Chapter 18: Ketones and Aldehydes

Chapter 19: Amines

Chapter 20: Carboxylic Acids

Chapter 21: Carboxylic Acid Derivatives

Chapter 22: Condensations and Alpha Substitutions of Carbonyl Compounds

Chapter 23: Carbohydrates and Nucleic Acids

Chapter 24: Amino Acids, Peptides, and Proteins

Chapter 25: Lipids

Chapter 26: Polymers

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 factual knowledge (terminology, classifications, methods, trends)
- 2) Learning fundamental principles, generalizations, or theories
- 3) Gaining a broader understanding and appreciation of intellectual/cultural activity

Keep these objectives in mind throughout the course.

SPRING 2014 CALENDAR

| Week | Monday | Tuesday | Wednesday | Thursday | Friday |
|------|---|--|------------------------|--------------------------|--|
| 1 | 1/13 | 1/14 | 1/15 | 1/16 | 1/17 |
| 2 | 1/20 MLK Day | 1/21 QUIZ 1 Last day to drop without a "W" | 1/22 | 1/23 | 1/24 |
| 3 | 1/27 | 1/28 | 1/29 | 1/30 | 1/31 |
| 4 | 2/3 | 2/4 QUIZ 2 | 2/5 | 2/6 | 2/7 |
| 5 | 2/10 Lecture Q&A | 2/11 MIDTERM 1 | 2/12 | 2/13 | 2/14 |
| 6 | 2/17 | 2/18 QUIZ 3 | 2/19 | 2/20 | 2/21 |
| 7 | 2/24 | 2/25 Lab Exam | 2/26 | 2/27 Lab Exam | 2/28 |
| 8 | 3/3 Spring Break | 3/4 Spring Break | 3/5 Spring Break | 3/6 Spring Break | 3/7 Spring Break |
| 9 | 3/10 | 3/11 QUIZ 4 | 3/12 | 3/13 | 3/14 Mid-semester Alert |
| 10 | 3/17 Lecture Q&A | 3/18 MIDTERM 2 | 3/19 | 3/20 | 3/21 |
| 11 | 3/24 Last day to withdraw without WF | 3/25 QUIZ 5 | 3/26 | 3/27 | 3/28 |
| 12 | 3/31 | 4/1 | 4/2 | 4/3 | 4/4 |
| 13 | 4/7 | 4/8 QUIZ 6 | 4/9 | 4/10 | 4/11 |
| 14 | 4/14 Lecture Q&A | 4/15 MIDTERM 3 | 4/16 | 4/17 | 4/18 Easter Holiday |
| 15 | 4/21 Easter Holiday | 4/22 Lab Exam | 4/23 | 4/24 Lab Exam | 4/25 Last Day of Classes!! |
| 16 | 4/28 | 4/29 | 4/30 | 5/1 FINAL EXAM | 5/2 |