

# Chemistry 0320

## Organic Chemistry 2

Spring 2019  
Lecture: Tues/Thurs 11:00am–12:15pm  
Recitation: Tues 3:00pm – 3:50pm  
Chevron 154

Instructor: Daniel Bolt  
Email: dab187@pitt.edu  
Office hours: Wed 2:00 – 4:00 pm  
Chevron 2<sup>nd</sup> Floor Balcony

### Course Description

This course is an introduction to theory and practice of organic chemistry through study of structural principles, reaction mechanisms, and synthesis. Toward the end of the term, complex molecules of biological interest are discussed. The basic goals of this course are to develop appreciation and skill in methods of molecular analysis which have made organic chemistry such a powerful intellectual discipline. This course will prepare students for work in advanced topics of organic chemistry, biochemistry, chemical engineering and health related sciences.

This course is an essential tool for understanding not only the chemistry of carbon-based compounds, but the molecular makeup and characteristics of the world around us. Throughout the course, I will make connections between course content and pharmaceuticals, household polymers and materials, and biological molecules and processes, among other examples. This course is especially useful as a bridge to biochemistry.

### Prerequisites

This course requires successful completion of organic chemistry 1. As this is a cumulative course, thorough knowledge of content from organic chemistry 1 is required throughout this course. Please be sure to keep your notes and course materials from organic chemistry 1 to review concepts as needed.

### Required Texts

*Organic Chemistry: Structure and Function 8<sup>th</sup> Edition* by Peter Vollhardt and Neil Schore

### Optional Texts

*Study Guide and Solutions Manual for Organic Chemistry: Structure and Function* by Neil Schore

### Grading

This course will be graded out of 500 total course points. The course will have three midterm exams and one final exam, as well as quizzes.

3 midterm exams  $\times$  100 pts each = 300 points  
10 quizzes  $\times$  10 pts each = 100 points  
Final exam  $\times$  100 pts = 100 points  
**Total course points = 500 points**

I believe that students should have opportunities to redeem themselves in the course if they perform poorly on a quiz or an exam. Therefore, if your final exam grade is higher than any of the three midterm grades, *I will replace your lowest exam grade with the final exam grade*. In addition, I will give 12 quizzes during the semester (worth 10 points each) and *will drop the lowest two quiz grades*, resulting in 100 course points total from quizzes.

### Grading Scheme

To reduce competition and to foster group learning, I am adopting a grading scheme that is independent of how fellow students are doing in the course. The grading scheme will be subject to change depending on how the grades are distributed at the end of the semester. The following points are based on a total possible of 500. Note that the +/- breaks are not public information and are designed for borderline cases.

Course Points	Letter Grade	Percentage
450+	A- to A+	90% and above
400–449	B- to B+	80%–89%
350–399	C- to C+	70%–79%
300–349	D- to D+	60%–69%
Less than 300	F	59% and below

It is important to note that grades are something that you *earn*, not something that I *give*. When assigning grades, I am looking at the level of mastery you have of the material. Your assessments (exams and quizzes) are designed to provide me with a measure of your proficiency.

### Midterm Exams

You will have three midterm exams in this course, worth 100 course points each. The exams will be an assessment of your proficiency with the recent material, as well as the *cumulative* course material from organic chemistry thus far (including Organic Chemistry 1). You will have 75 minutes for completion of each exam. Makeup exams will not be given. If you are unable to make an exam, then you can use your final exam as the replacement score.

### Quizzes

You will have 12 total quizzes in this course, including six in-class quizzes and six take-home quizzes. Quizzes are worth 10 points each. You will have 15 minutes starting from the beginning of class for in-class quizzes. Quizzes must be turned in by 11:15 so that I can have 60 minutes for lecture. I will not accept late quizzes. Take-home quizzes are due at the start of the following class. I will drop your two lowest quiz grades, leaving you with 100 total course points from quizzes. Make-up quizzes will not be given. If you are unable to come to class, then the quiz that you missed can be counted as one of your dropped quizzes.

### Final Exam

The final exam is worth 100 points. The exam date, time, and room will be given in advance. As stated above, I will drop your lowest midterm exam score in favor of the final exam if it improves your standing in the class

## **Quiz and Exam Re-grades**

The following policy will be strictly adhered to. For any exam or quiz to be re-graded, a completed “Re-grade Request Form” must be filled out and returned to me within *seven calendar days* of the exam or quiz being returned to the class. No exam will be considered for a re-grade if any marks have been made on it by anyone since the original grading was done. Your entire exam will be re-graded – not only the portion that you request. There is, therefore, a chance that you may lose rather than gain points.

## **Recitation**

Recitation will be held on Tuesdays from 2:00pm – 2:50pm in CSC 154, the same room as lecture. During recitation, we will go over quizzes and exams from lecture, and I will give problem sets and work example problems from the book. Recitation is expected to be more interactive than lecture – I may have students come to the board or work in groups. You are encouraged to attend!

## **Academic Integrity**

Students in this course will be expected to comply with the University of Pittsburgh's Policy on Academic Integrity. Any student suspected of violating this obligation for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the examination of any individual suspected of violating University Policy. Furthermore, no student may bring any unauthorized materials to an exam, including dictionaries and programmable calculators.

## **Disability Statement**

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and Disability Resources and Services (DRS), 140 William Pitt Union, (412) 648-7890, [drsrecep@pitt.edu](mailto:drsrecep@pitt.edu), (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course. All students certified by DRS must take their exams through Pitt's Testing Center.

## **Statement on Classroom Recording**

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities without the advanced written permission of the instructor, and any such properly approved in advance can be used solely for the student's own private use.

## Tentative Course Schedule

Class Mtg	Date T/Th 11:00am		Comment CSC-154	Chapter	Topic
1	8-Jan-19	T	1st class	Chapter 14	14-Delocalized Pi Systems
2	10-Jan-19	Th	Quiz 1 (take-home)	Chapter 14	14-Delocalized Pi Systems
3	15-Jan-19	T		Chapter 15	15-Benzene, Aromaticity, EAS
4	17-Jan-19	Th	Quiz 2 (in class)	Chapter 15	15-Benzene, Aromaticity, EAS
18-Jan-19 Spring Term Add/Drop Period Ends					
5	22-Jan-19	T		Chapter 16	16-EAS of Substituted Benzenes
6	24-Jan-19	Th	Quiz 3 (take-home)	Chapter 16	16-EAS of Substituted Benzenes
7	29-Jan-19	T		Chapter 17	17-Aldehydes and Ketones
8	31-Jan-19	Th	Quiz 4 (in class)	Chapter 17	17-Aldehydes and Ketones
9	5-Feb-19	T		Chapter 18	18-Enols and Enolates
10	7-Feb-19	Th	Quiz 5 (take-home, due Thursday)	Chapter 18	18-Enols and Enolates
11	12-Feb-19	T	EXAM 1	Ch. 1-17	
12	14-Feb-19	Th		Chapter 19	19-Carboxylic Acids
13	19-Feb-19	T	Quiz 6 (in class)	Chapter 19	19-Carboxylic Acids
14	21-Feb-19	Th		Chapter 20	20-Carboxylic Acid Derivatives
15	26-Feb-19	T	Quiz 7 (take-home)	Chapter 20	20-Carboxylic Acid Derivatives
16	28-Feb-19	Th		Chapter 21	21-Amines
17	5-Mar-19	T	Quiz 8 (in class)	Chapter 21	21-Amines
18	7-Mar-19	Th	EXAM 2	Ch. 1-21	
8-Mar-19 Withdrawal Deadline					
--	12-Mar-19	T	Spring Break – No Class		
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19	19-Mar-19	T		Chapter 22	22-Substituted Benzenes
20	21-Mar-19	Th	Quiz 9 (take-home)	Chapter 22	22-Substituted Benzenes
21	26-Mar-19	T		Chapter 23	23-Ester Enolates
22	28-Mar-19	Th	Quiz 10 (in class)	Chapter 23	23-Ester Enolates
23	2-Apr-19	T		Chapter 23	23-Ester Enolates
24	4-Apr-19	Th	Quiz 11 (take-home)	Chapter 24	24-Carbohydrates
25	9-Apr-19	T		Chapter 24	24-Carbohydrates
26	11-Apr-19	Th	EXAM 3	Ch. 1-24	
27	16-Apr-19	T		Ch. 25 & 26	Selected Topics from 25 & 26
28	18-Apr-19	Th	Quiz 12 (in class)	Ch. 25 & 26	Selected Topics from 25 & 26
	Apr 22-27		FINALS WEEK		