

# CHEM 0310 – Organic Chemistry 1

## Syllabus – Fall 2025

MWF 3:00-3:50 p.m. (lecture)

Tu 5:00-5:50 p.m. (recitation)

152 Chevron

**Instructor:** Professor W. Seth Horne

**Office:** Chevron 1405

**E-mail:** horne@pitt.edu

**Office Hours:** W 4:00-5:00 pm, Th 10:00-11:00am

### **Course Description**

An introduction to theory and practice of organic chemistry through study of structural principles, reaction mechanisms, and synthesis leading toward end of second term, when complex molecules of biological interest are discussed. Basic goals of course are to develop appreciation and skill in methods of molecular analysis which have made organic chemistry such a powerful intellectual discipline. Course will prepare student for work in advanced topics of organic chemistry, biochemistry, chemical engineering and health related sciences.

### **Course Materials**

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

*Study Guide and Solutions Manual* for Vollhardt and Schore text (optional)

Molecular Model Set (optional)

### **Exam Schedule**

Midterm Exam 1	Chapters 1-4	Wed. 9/24
Midterm Exam 2	Chapters 5-8	Wed. 10/29
Midterm Exam 3	Chapters 9-12	Wed. 12/3
Final Exam	Chapters 1-13	TBD (set by University Registrar)

*(Midterm exam dates are tentative. Actual dates will be confirmed in class.)*

### **Grading**

Two grades are calculated for the course based on different weighting schemes: (1) each of the three midterms counts 20% toward the course grade and the final counts 40%; (2) the lowest midterm score is dropped, the two remaining midterms each count 25%, and the final counts 50%. The weighting scheme that gives each student the higher grade for the course will be automatically applied. Make-up exams will not be offered. An exam missed for any reason can count as a dropped score.

### **Recitation**

A recitation session will be held weekly on Tuesdays from 5:00-5:50 pm. Material covered in recitations will be driven primarily by students. Come prepared with questions about recent lectures, unclear concepts, problems from the text, old exams, etc. We will also use recitation time to work through practice problems together.

### **Working Problems**

There is no better way to master organic chemistry than by working problems. Besides reinforcing concepts, such practice prepares students to effectively demonstrate knowledge during graded assessments. At the beginning of each chapter, I will provide a list of problems from the book that I think are most valuable for reinforcing the topics emphasized in class. While these problem sets will not be graded, I strongly encourage you to work through them on your own or in small groups. We will use a part of recitation time each week working through these and other problems together.

### **Learning Objectives**

At the beginning of each chapter, a file will be posted to Canvas containing a set of learning objectives for that chapter. These documents frame key concepts to be covered in terms of a set of clearly defined proficiencies (i.e., knowledge and skills). Learning objectives are heavily used in the design of exams, and many students find them helpful in guiding their study efforts.

### **Communication**

The best way to reach me is by e-mail. My primary mode of providing course information and updates outside of in-person class meetings will be Canvas for class-wide announcements and e-mail for one-on-one communication.

### **Your Well-being Matters**

College can be an exciting and challenging time for students. Taking time to maintain your well-being and seek appropriate support can help you achieve your goals and lead a fulfilling life. It can be helpful to remember that we all benefit from assistance and guidance at times, and there are many resources available to support your well-being while you are at Pitt. You are encouraged to visit Thrive@Pitt [<https://www.thrive.pitt.edu>] to learn more about well-being and the many campus resources available to help you thrive.

If you or anyone you know experiences overwhelming academic stress, persistent difficult feelings and/or challenging life events, you are strongly encouraged to seek support. In addition to reaching out to friends and loved ones, consider connecting with a faculty member you trust for assistance connecting to helpful resources.

The University Counseling Center [<https://www.counseling.pitt.edu>] is also here for you. You can call 412-648-7930 at any time to connect with a clinician. If you or someone you know is feeling suicidal, please call the University Counseling Center at any time at

412-648-7930. You can also contact Resolve Crisis Network at 888-796-8226. If the situation is life threatening, call Pitt Police at 412-624-2121 or dial 911.

### **Civil Rights and Title IX**

The University of Pittsburgh does not tolerate any form of discrimination, harassment, or retaliation based on disability, race, color, religion, national origin, ancestry, genetic information, marital status, familial status, sex, age, sexual orientation, veteran status or gender identity or other factors as stated in the University's Title IX policy. The University is committed to taking prompt action to end a hostile environment that interferes with the University's mission. For more information about policies, procedures, and practices, visit the Civil Rights & Title IX Compliance web page [<https://www.wellbeing.pitt.edu/civil-rights-title-ix>].

I ask that everyone in the class strive to help ensure that other members of this class can learn in a supportive and respectful environment. If there are instances of the aforementioned issues, please contact the Title IX Coordinator, by calling 412-648-7860, or e-mailing [titleixcoordinator@pitt.edu](mailto:titleixcoordinator@pitt.edu). Reports can also be filed online [<https://www.wellbeing.pitt.edu/civil-rights-title-ix/how-make-report>]. You may also choose to report this to a faculty/staff member; they are required to communicate this to the University's Office of Institutional Engagement and Wellbeing. If you wish to maintain complete confidentiality, you may also contact the University Counseling Center (412-648-7930).

### **Disability Resources**

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) [<https://www.wellbeing.pitt.edu/disability-resources-services/disability-resources-services>], 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.

### **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 advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use. Some class meetings may be recorded by the instructor if taking place in a remote or hybrid format. Such recordings are intended for use by registered students only for internal class purposes and only during the current term.

### **Academic Integrity**

Students in this course will be expected to comply with University of Pittsburgh's Policy on Academic Integrity [<https://www.provost.pitt.edu/academic-integrity-guidelines>]. 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.

To learn more about Academic Integrity, visit the Academic Integrity Guide [<https://pitt.libguides.com/academicintegrity>] for an overview of the topic. For hands-on practice, complete the Academic Integrity Modules [<https://pitt.libguides.com/academicintegrity/plagiarism>].

### **Copyright Notice**

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## CHEM 0310 Lecture Schedule

(tentative)

<u>Date</u>	<u>Chapter</u>
Aug. 25, 27	Chapter 1 - Structure and Bonding in Organic Molecules
Aug. 29; Sept. 3, 5	Chapter 2 - Structure and Reactivity, Acids and Bases
Sept. 8, 10, 12	Chapter 3 - Reactions of Alkanes
Sept. 15, 17, 19	Chapter 4 - Cycloalkanes
Sept. 22	Chapter 5 - Stereoisomers
Sept. 24	<b>Midterm Exam 1</b>
Sept. 26, 29	Chapter 5 - Stereoisomers
Oct. 1, 3, 6	Chapter 6 - Properties and Reactions of Haloalkanes
Oct. 8, 13, 15	Chapter 7 - Further Reactions of Haloalkanes
Oct. 17, 20, 22, 24	Chapter 8 - Hydroxy Functional Group: Alcohols
Oct. 27	Chapter 9 - Further Reactions of Alcohols and Ethers
Oct. 29	<b>Midterm Exam 2</b>
Oct. 31; Nov. 3	Chapter 9 - Further Reactions of Alcohols and Ethers
Nov. 5, 7	Chapter 10 - Using NMR Spectroscopy to Deduce Structure
Nov. 10, 12, 14	Chapter 11 - Alkenes
Nov. 17, 19, 21	Chapter 12 - Reactions of Alkenes
Dec. 1	Chapter 13 - Alkynes
Dec. 3	<b>Midterm Exam 3</b>
Dec. 5	Chapter 13 - Alkynes