GEORGIA STATE UNIVERISTY

ORGANIC CHEMISTRY I

SPRING 2018 COURSE SYLLABUS



Instructor	Office	Phone Number	e-mail address
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Class Meetings: MWF 3:00 – 3:50 pm; Classroom South 102 Office Hours: TBD. No office hours the day of an exam Mandatory Office Hours: Each student must attend office hours before the first exam.

Communication:

- 1. Send emails to me from your GSU e-mail account. Please put the course name in the subject of your email. (**Do not email from iCollege**)
- 2. Please check iCollege daily for class announcements and updates

Course Prerequisite: General Chemistry

Required texts and resources:

- 1. Organic Chemistry, 8th or 9th Ed., by John McMurry, ONLINE HOMEWORK PURCHASE NOT REQUIRED.
- 2. Learning Catalytics. Please sign up at learningcatalytics.com. The cost is \$12. We will be using this for pre-class and in-class quizzes and participation credit.
- 3. Preparing for Your ACS Examination in Organic Chemistry: The Official Guide

Other useful resources:

- 1. Organic Chemistry as a Second Language, David Klein
- 2. Organic Chemistry 1 & 2: A Student Workbook by Keith O. Pascoe

Chem 2401 is a tutorial class to help you with the lecture. You should register. The credits count toward your GPA but not towards your degree. Grading is based on your

attendance. Check GoSolar for details.

Grading Scheme: Four exams will be given during the semester; the lowest score of these tests will be dropped; the average of the **remaining 3 tests will count 55% of your final grade.** The **final exam (ACS) will count 30%** of the total grade. You are strongly encouraged to take all tests. **Quizzes are 10%** of the total grade. In addition, **participation/LC will count 5%** of the total grade.

This course is flipped! Here is how it works:



Tentative Letter Grades:

A+ = >95% A = 90% A- = 88% B+ = 84% B = 80% B- = 78% C+ = 75% C = 69% C- = 65% D = 61% F = < 54%

Important Dates:

1/8	Classes begin
1/15	MLK Holiday. No classes
2/27	Last day to withdraw with a grade of $`' {\ensuremath{\textbf{W}}}"$

3/12 - 3/18Spring Break. No classes this week4/23Last day of classes

Tentative Exam Schedule:

Exam 1 - Wednesday 1/31 Exam 2 - Wednesday 2/21 Exam 3 - Wednesday 3/21 Exam 4 - Wednesday 4/18 Final Exam – TBD (Comprehensive, mandatory, ACS Standardized Exam).

Course Introduction

Organic Chemistry is the study of compounds containing carbon. Both traditional and non-traditional learning strategies will be employed to introduce concepts (including group-based learning and inclass concept checks).

You will be introduced to the fascinating world of Organic Chemistry. Organic Chemistry touches your life in ways you may not realize. You are made of organic chemicals. The foods you eat, the clothes your wear, the medicines you take in times of illness are all organic chemicals. I hope to instill in you a sense of appreciation of how organic chemistry is the foundation of the life process and how it affects your quality of life.

We will explore structure/reactivity relationships as a basis for all of organic. We will use reaction mechanisms (the pathways by which chemical bonds are broken and formed) as an underlying thread to tie together many seemingly different reactions. We will discuss the energetic of chemical reactions which, when coupled to mechanistic theory, will answer the question of why chemical reactions occur. We will learn aspects of modern spectroscopic techniques for structure determination.

Course Objectives

Upon successful completion of this course, the student will:

1. Demonstrate an understanding of the relationship that exists between the structure of an organic molecule and its physical and chemical properties.

- 2. Be able to name and draw organic molecules.
- 3. Demonstrate a mastery of the basic reactions involving organic compounds.
- 4. Be able to illustrate mechanistic pathways for the formation of organic compounds.
- 5. Be able to analyze and interpret data and develop logical conclusions relating to concepts in Organic Chemistry.
- 6. Be able to find and apply information needed to solve a problem and master concepts.

7. Demonstrate inquiry skills that will enable them to formulate questions and to develop explanation of organic concepts.

8. Know the connection between fundamental concepts of Organic Chemistry and topics in other fields including biology (such as proteins and genomics), art, medicine, psychology.

9. Demonstrate confidence as a leader, an independent thinker and a life-long learner.



How to Succeed in Organic Chemistry - Follow the Study Cycle

Repetition is key. Ask questions such as "why", "how", and "what if." Use Intense Study Sessions (see below). Do 3 - 5 short study sessions a day. Use weekends to review. Read notes and material from the week to make connections.

NTENCE	1. Set a Goal	(1 - 2 minutes)	Decide what you want to accomplish in your study session
	2. Study with Focus	(30 - 50 minutes)	Interact with material – organize, concept map, summarize, process, re-read, fill-in notes, reflect, etc.
ESSIONS	3. Reward Yourself	(10 - 15 minutes)	Take a break – call a friend, play a short game, get a snack
LUUIU	4. Review	(5 minutes)	Go over what you just studied

Reviewing and mastering concepts:

- 1. Daily study is more important than the total number of hours spent weekly. Historically, students who have postponed studying until the weekends have not done well in this course.
- 2. Work homework and additional problems on your own and work together with other students
- 3. Utilize solution manuals and answer keys when available to check your answers **AFTER** you have tried the problems yourself.
- 4. Actively re-read the notes and rework the problems in each section to identify points of difficulty and ensure understanding.
- 5. Let it marinate! Organic chemistry is like a good gumbo in that you have to give it time to settle or sink in.
- 6. Form a small study group with your classmates and work problems together at least weekly.
- 7. Utilize other organic textbooks for extra problems or to read a different perspective on a difficult topic. Sometimes reading a different interpretation of the concept can significantly enhance your understanding.
- 8. Make use of all resources available, including office hours.

Class Preparation and Attendance: Students are expected to attend all lectures. As a courtesy to your fellow students, please arrive on time and do not leave before the lecture is complete. The student is solely responsible for timely completion of all assignments, regardless of any reason or absence. Reading assignments should be completed prior to the lecture. Please keep up with the suggested problems.

Please note:

- 1. We will be covering Chapters 1-11, sequentially. Some of the chapters will be covered partially. Plan about 2-3 lectures per chapter or about 1 chapter per week
- 2. You should read ahead of the lecture. Please keep up with the work.
- 3. No make-up exams or quizzes will be given.
- 4. NO EXTENSIONS ON HOMEWORK ASSIGNMENTS

- 5. Students need to show their GSU Panther I.D. card when taking exams.
- 6. The instructor reserves the right to assign seating during exams and quizzes.
- 7. Students are requested not to bring cellular telephones and/or pagers to lectures or exams. Persons violating this request will be asked to leave the room. No programmable calculators will be allowed in the classroom, laptops are allowed during lectures BUT NOT during exams.
- 8. The University requires that faculty members must give an **F** to all those students who are on their rolls but no longer taking the class. Students that withdraw themselves by the mid-point will receive a **W** under this policy.
- 9. Final grades are only available on GoSolar.

Supplemental Materials:

- 1. Molecular model kit
- 2. Study guide/answer key

Chemistry Department Student Integrity Policy: The Department of Chemistry follows the University policy on academic honesty published in the Faculty Affairs handbook and the On Campus: The Undergraduate Co-Curricular Affairs Handbook.

All tests taken must represent your individual, unaided efforts. To receive or offer information during any examination will be considered cheating. The use of unauthorized supplementary materials during tests also will be considered cheating. Any suspected offenses may be referred to the Department Chair for appropriate action.