# CHEMISTRY 231  
**ORGANIC CHEMISTRY I**  
**SPRING 2018 SYLLABUS**

## Course Info and Policies

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<thead>
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<td>Connect web page:</td>
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Office hours: **SUBJECT TO CHANGE**: T 10 AM - 12 pm, R 11 AM–1:30 pm. Other days/times by appointment: M-W-F at 5pm is potentially good. If I'm in my office and the door is open, I’m willing to take questions. If the door is closed, please understand that you may need to come back another time or make an appointment. Dr. Himes is a busy guy! *Additional help sessions may be scheduled during the semester.*

**Lecture:** TR 1:40 PM – 2:55 PM, 415 BellSouth

### Important dates:
- Jan. 16: Last day to drop/add
- March 2: Last day of Express II drop/add
- March 13: Last day to withdraw with a grade of ‘W’
- March 18-24: Spring Break!
- April 24: Reading day

### IN-CLASS EXAMS:
- **Exam 1**: Tuesday, January 30th
- **Exam 2**: Tuesday, March 6th
- **Exam 3**: Tuesday, April 17th

A fourth, “take-home” exam will be due Reading Day (April 24th)

### FINAL EXAM:
- Tuesday, May 1, 12-3 pm, 415 BellSouth


**Optional texts:**

The textbook package sold at the CofC bookstore includes the solutions manual.

ACS Organic Chemistry Study Guide
http://shopping.na1.netsuite.com/s.nl/c.3773982/sc.11/category.191/.f

**Co-requisite:** You must be registered for Chem 231 lab concurrently or have completed the lab course.

**Attendance:** Attendance is *strongly* encouraged. Unannounced quizzes will be administered in lecture. A missed in-class quiz cannot be made up and will count as a 0. Additionally, material not covered in the textbook may be covered in lecture. You are responsible for material that you miss; office hours will not be used to teach missed topics.

**Exams:** You are expected to take each exam in class, on the dates listed above. Makeup exams will not be administered.

**Disabilities:** If there is a student in this class who has a documented disability and has been approved to receive accommodations through SNAP Services, please feel free to come and discuss this with me during my office hours.

**Academic integrity:** This course is conducted under the Honor Code of the College of Charleston (http://www.cofc.edu/studentaffairs/HonorBoard?HonorBoard.htm). Review the Department of Chemistry and Biochemistry’s policy on Scientific Integrity (http://www.cofc.edu/~chem/advising/integ.pdf).
Email: Email is considered an official method for communication at the College of Charleston. If students wish to have email redirected from the official College-issued account to another email address (e.g., @gmail.com, @hotmail.com), they may do so, but at their own risk. Having email redirected does not absolve the student from the responsibilities associated with communication sent to his or her College account. The College is not responsible for the handling of email by outside vendors or unofficial servers. Students are expected to check their CoC official email frequently for College related communications. Checking email on a daily basis is recommended. Students are responsible for reading all time-sensitive communications. "I didn't check my email", forwarding errors, or email returned to the College with "Mailbox Full" or "User Unknown" are not acceptable excuses for missing official College communications via email. Please check your e-mail frequently and carefully read each e-mail from the instructor.

Course Performance and Evaluation

Grades: Assignment weighting and the grading scale for the course are below. You are responsible for picking up graded assignments, either in class or the instructor's office. Graded papers cannot be left in public areas nor will grades be distributed by e-mail or over the phone. Please come to office hours if you need to discuss your grade and class performance.

Formula:
3 in-class exams, 200 pts each 600 points
LearnSmart Prep – MUST BE COMPLETED BY 11 PM, JANUARY 26th 50 points
Quizzes / Homework / Take-home exam: Unannounced ("pop") or announced quizzes. 150 points
Group homework. Individual take-home exam.
Final Exam: Standardized ACS exam. 200 points

TOTAL 1000 points

If your final exam score is higher than your average midterm exam score, your final exam score will take the place of your lowest midterm score. In that case, the final would be worth 400 points, and your three highest in-class exam scores would be worth a total of 600 points.

Grading Scale:

A 92-100%  B- 79-82%  D 63-68%
A- 90-92%  C+ 77-79%  F <63%
B+ 88-90%  C 71-77%
B 82-88%  C- 68-71%

Scores will not be rounded. A percentage of 91.99 will remain an A-, for example. Rounding is stressful.

LearnSmart Prep: This online assignment is due before 11 pm on Tuesday, September 5th. The software package is called LearnSmart Prep and it will take each student through an individualized chemistry review of important material from CHEM 111 and CHEM 112. A link to directions for accessing and completing the assignment is posted on the chemistry department website, under Resources, LearnSmart Prep for CHEM 231. http://chemistry.cofc.edu/currentstudents/resources/index.php

Quizzes/Homework: Quizzes (generally unannounced, or “pop,” quizzes) will be given at the beginning of lecture on certain days. The intention is to make sure that you keep up with course material and practice problems as we cover new material. The difficulty of the material necessitates that you study the topics and work many practice problems daily, throughout the semester, not just the day before an exam.

Graded homework assignments may be given, especially in the latter two-thirds of the semester when we cover reactions and mechanisms. These assignments will include more challenging problems that require you to apply multiple concepts to solving them. Graded homework will be given as group assignments, to be worked with classmates.
A take-home “exam” will also count toward this category’s total points. This assignment will be worked individually, without aid from peers or instructors; it will include review questions to prepare you for the final plus questions concerning material covered late in the semester that does not appear on in-class exams.

The take-home will be worth a set number of points (TBD). The point values of quizzes and homework will be scaled to total the balance of the 150 points for this category. (E.g., if the take-home is worth 100 pts and we have a total of five quizzes plus homework assignments, then each quiz and homework would be worth 10 points.)

**Practice problems:** Practicing problems is absolutely critical to learning and understanding organic chemistry and, in general, the more practice you SUCCESSFULLY complete, the better your performance in the course. It is recommended that you complete ALL of the textbook problems in each chapter that we cover. Additional recommended problem sets will be distributed or posted on OAKS. You are not required to complete them, HOWEVER – the best way to learn organic chemistry is to continually practice problems! The more you do, the more you learn.

**Exams:** Three in-class exams will be given during regular class meetings on the dates provided above. The ACS final can replace your in-class exam grade if doing so will improve your average and if (and only if): 1. You personally have taken all three exams; 2. Your final exam score is higher than your average in-class exam score; and 3. The entire class has a response rate of greater than 75% for the online course evaluations at the end of the semester. Missed exams may not be made up; your final exam grade will take the place of the zero (0) for one missed exam.

**Final Exam:** A standardized, timed, multiple-choice test prepared by the American Chemical Society. Grades for are curved based on national norms. The prep guide for this exam is available for purchase and at the library.

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### Course Learning Outcomes and Topics

**Learning Outcomes:** By the end of this course, students will be able to:

- Demonstrate basic communication skills within organic chemistry for example structure, nomenclature, mechanisms, reaction schemes
- Define and use fundamental concepts associated with physical organic chemistry
- Use foundational skills of organic reactions to predict organic reaction outcomes

**Course Outline:** The following chapters of Carey/Giuliano 10th ed. will be covered in the following order. However, *MATERIAL NOT PRESENT IN THE TEXTBOOK MAY BE COVERED IN LECTURE.*

- Chapter 1: Structure, Acid/Base, etc.
- Chapter 2: Intro to hydrocarbons
- Chapter 3: Conformational analysis
- Chapter 4: Chirality
- Chapter 5: Alcohols/Alkyl halides - Rxn intro
- Chapter 6: Nucleophilic Substitution
- Chapter 7: Eliminations
- Chapter 8: Additions to Alkenes
- Chapter 9: Alkynes
- Chapter 10: Free Radicals
- Chapter 11: Conjugation (Dienes/Allylic, etc.)
- Chapter 12: Arenes/Aromaticity
- Chapter 13: Electrophilic aromatic substitution and nucleophilic aromatic substitution
NOTE: Chapter 14.20-14.25 (Spectroscopy (IR and MS)) covers material that will be introduced in lab Experiment III. You WILL be responsible for IR and MS once covered in lab, but this material will not be covered further in lecture. Feel free to ask question about spectroscopy in office hours.

### Suggestions for Approaching Organic Chemistry

Organic chemistry builds on itself. The topics we cover the first week will be indispensable for understanding those covered the second week, and so on throughout the semester. **DO NOT GET BEHIND!** You should be devoting several hours of study for each hour of lecture.

First off: READ in advance of the lectures. You will understand more in lecture if you read ahead. You will come up with informative questions to ask if you read ahead. You will be able to spend more time *listening* in lecture as opposed to trying to write every detail down in your notebook.

The next step will be to WORK PROBLEMS. Lots of them. **PRACTICE PRACTICE PRACTICE.** You should work ALL of the textbook problems. Working a problem does not mean looking at the question, immediately looking at the solution, and then telling yourself, "Yeah, I can do that." You need to be able to successfully solve the problems WITHOUT LOOKING AT ANSWERS, on your own, and as efficiently as possible.

Here are suggestions:

1. Do as many problems as you can from our textbook, on OAKS, from other textbooks, and other resources (e.g., online).
2. Go to peer mentor meetings.
3. Go to office hours.
4. Do more problems.
5. Get a tutor if you want one (sooner rather than later).
6. Overall, do problems and get help if you need it.

**Before class:** Read and become familiar with the material prior to each class meeting. As you read and prepare prior to class, think of specific questions you may wish to ask in lecture.

**During class:** Participate! I encourage and expect questions. Questions help me evaluate what you have understood and when I need to be clearer. When preparing for class, jot down potential questions you may want to ask – the more focused and specific, the more you will get out of the answer. (Coming up with a good, focused question is an excellent way to pinpoint what you understand and what you don’t.)

**After class:** No, really – why aren’t you working more problems??? Go work problems!