Instructor: Dr. Richard A. Himes  
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e-mail: himesra@cofc.edu  
Phone: (843) 953-3618  
Connect web page: http://connect.mheducation.com/class/himes-s15-chem231-01  
SI Leader: Brenna Norton-Baker (nortonbakerbc@g.cofc.edu)  

Office hours: Subject to change: M 11 am-12 pm, W 11 am-12 pm, R 10:30 am-12:30 pm, F 11 am - 12 pm. 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 late afternoon/early evening times during the semester.

Lecture: Section 01: MWF 10-10:50 AM, 103 RSS (Robert Scott Smalls building)  


MIDTERM EXAMS:  
- Exam 1: Monday, February 2nd  
- Exam 2: Monday, February 23rd  
- Exam 3: Friday, March 20th  
- Exam 4: Friday, April 10th  
- Exam 5: Monday, April 27th  

FINAL EXAM: May 4, 8 am - 12 pm, 103 RSS.  


Optional texts:  

ACS Organic Chemistry Study Guide  

Co-requisite: You must be registered for Chem 231 lab concurrently.

Attendance: Attendance is strongly encouraged. 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 venders or unofficial servers. Students are expected to check their CoFC 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.

<table>
<thead>
<tr>
<th>Formula</th>
<th>Grading Scale</th>
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<tbody>
<tr>
<td>Quizzes: 5%</td>
<td>A 92-100%</td>
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<tr>
<td>5 Midterm Exams: 80%</td>
<td>B- 78-80%</td>
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<td>Final Exam: 15%</td>
<td>B 80-87%</td>
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<td>B+ 87-89%</td>
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<td>C 69-76%</td>
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<td>C- 67-69%</td>
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Scores will not be rounded. A percentage of 91.99 will remain an A-, for example. Rounding is stressful.

Homework: Online (Connect) homework will be assigned and due as we cover the sections in the text. In other words, you will have to read the text and attempt these assignments before the class in which the concepts will be covered. The assignments will count as extra credit – up to 1 point per assignment – toward the upcoming midterm exam and will be found on our section’s Connect page: http://connect.mheducation.com/class/himes-s15-chem231-01. The extra credit is earned based on completion and will be rounded up to the nearest half point.

Quizzes: During the semester, announced quizzes will be given either at the start of the lecture, as turn-in homework assignments, or as on-line quizzes on Connect. All will be due or administered on Fridays during weeks that do not have an exam scheduled. Late assignments/missed quizzes may not be made up and will not be dropped.

Problem Sets: Recommended problem sets will be distributed or posted on OAKS and/or assigned from the end-of-chapter textbook problems. 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: Five midterm exams will be given during regular class meetings on the dates provided above. The ACS final can replace your lowest midterm exam grade if doing so will improve your average and if (and only if): 1. You personally have taken all five midterm exams; 2. Your final exam score is higher than your average midterm 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 the final are curved based on national norms. The optional prep guide for this exam is available for purchase. See above for a link.

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**Course Learning Outcomes and Topics**

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

- Interpret and analyze structural formula and resonance characteristics of common functional groups
- Draw and interpret general features of curved arrow notations that illustrate mechanistic processes for common organic reactions
- Use IUPAC and common nomenclature for alkanes, alkenes, alkynes, alkyl halides and alcohols
- Draw and interpret three dimensional structures for all types of isomers of organic compounds
- Define and use fundamental concepts associated with acid-base, thermodynamic, kinetic and structural theories as they relate to processes associated with organic chemistry
- Evaluate knowledge and principles about organic reactions and reactivities to make reasonable predictions about likely outcomes when presented with related chemistry
- Deduce, design and evaluate retrosynthetic schemes including functional group transformations

**Course Outline:** The following chapters of Smith 4th ed. will be covered in the following order. Additional material from the text may or may not be covered as indicated below; if we do cover those sections, you will be so informed in advance. *MATERIAL NOT PRESENT IN THE TEXTBOOK MAY BE COVERED IN LECTURE.*

- Chapter 1: Structure and Bonding
- Chapter 2: Acids and Bases
- Chapter 3: Introduction to Organic Molecules and Functional Groups
- Chapter 13: Mass Spectrometry and Infrared Spectroscopy
- Chapter 4: Alkanes*
- Chapter 5: Stereochemistry
- Chapter 6: Understanding Organic Reactions
- Chapter 7: Alkyl Halides and Nucleophilic Substitution*†
- Chapter 8: Alkyl Halides and Elimination Reactions
- Chapter 9: Alcohols, Ethers, and Epoxides†
- Chapter 10: Alkenes
- Chapter 11: Alkynes
- Chapter 12: Oxidation and Reduction†
- Chapter 15: Radical Reactions

* Topics from Chapter 15: Radical Reactions may be introduced early, while covering these chapters.
† Topics from Chapter 20: Introduction to Carbonyl Chemistry[...]

[...] may be covered here.
Suggestions for Approaching Organic Chemistry

Organic chemistry builds on itself: The topics we cover the first week will be indispensable for 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.

The McGraw-Hill SmartBook and LearnSmart assignments will be extremely helpful for first introducing yourself to the material, and reinforcing the "building block" concepts. READ in advance of the lectures; start working through the LearnSmarts as soon as possible as we cover the material.

The next step will be to WORK PROBLEMS. Lots of them. The online assignments do not replace the necessity of PRACTICE PRACTICE PRACTICE. Connect will help break the concepts and topics into bite-sized bits; to learn the material comprehensively, you should then be practicing lots of recommended problems, in which you will apply one, two, or multiple concepts we have learned. Here are the suggestions of the immortal Dr. Wyatt:

“1. Do as many problems as you can from our textbook, other textbooks, and other resources (e.g., online).
2. Go to SI.
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: The Connect assignments will encourage you to read and become familiar with the material prior to each class meeting. Besides earning you fabulous extra credit, this prep time will help you get the most out of the lecture and will help you ask questions that will most augment your understanding of the topics. 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!