Information and Policies

Instructor: Michael W. Giuliano
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Office Phone: (843) 953-8099
Connect web page: http://connect.mheducation.com/class/m-giuliano-giuliano-spring-2017-tr-1215-130pm
Peer Mentor: Sarah Clinkscales (clinkscalesse@g.cofc.edu)

Office hours: Subject to change. Tuesdays and Thursdays 11am-12pm (problem-solving sessions), Fridays 10:00am-12:00pm (walk-in). When my office door is open, I am ready and willing to take questions (or just chat about chemistry!). If my office door is closed and/or I am not in the office, I am likely working on research and other tasks and cannot meet at the moment. In that case, please come by at another time, or contact me by email to set up an appointment.

Lecture: Chemistry 232, Section 03. CRN: 20253. Class meets Tuesday and Thursday from 12:15pm – 1:30pm in Jewish Studies Center Room 333. See you there!

Important dates during the semester: Wednesday, January 18th, 2017 – last day to drop/add; Tuesday, March 7th and Thursday, March 9th, 2017 – no class due to spring break; Thursday, March 23rd, 2017 – last day to withdraw with a grade of W; Sunday, April 30th, 2017 – Reading Day.

Exam dates: All exams are in the regular classroom at normal class time on the listed day. Should an exam date require a change, students will be notified in advance by email.

Exam 1: Tuesday, February 7th
Exam 2: Thursday, March 2nd
Exam 3: Tuesday, April 4th
Exam 4: Tuesday, April 25th

Final Exam: Thursday, May 4th, 12pm-3pm; this is the standardized ACS Organic Chemistry Exam, which will be administered to all sections of Chemistry 232.

Required text:

Optional texts:


Co-requisite: You must be concurrently registered for or have previously taken Chemistry 232 laboratory (232L) and taken and received passing grades in Chemistry 231 and 231L.

Attendance: Attendance is strongly encouraged! Lectures may include material that is not in the text and you will be responsible for all material covered in lectures and in your text on exams and problem sets. You are expected to take each exam in class as scheduled. Makeup exams will not be available. In cases of officially documented absences resulting in a missed exam, a student may replace the missed exam score with their final exam score.
Chemistry 232 Syllabus – Organic Chemistry II Spring 2017

**Students with Disabilities:** Please contact me and stop by my office hours (as early as possible in the semester) if you have been approved to receive accommodations through SNAP Services. Please consult the Student Guide to SNAP Services for more information: http://disabilityservices.cofc.edu/documents/student-guide.pdf

**Academic Integrity:** Many instances of academic dishonesty arise from students feeling overwhelmed in a course or by external pressures. College can be an overwhelming time, and if you are feeling this way about my class, please contact me! I would much rather work with a student at office hours and/or by appointment than see them compromise their academic values. The results are upsetting for all involved. As such, I will strictly enforce academic honesty and integrity in all facets of this course. The course is conducted under the Honor Code of the College of Charleston. You are responsible for reading, understanding, and strictly adhering to this policy, as am I. For more information, please see the College’s policy information at http://studentaffairs.cofc.edu/honor-system/ and the Department of Chemistry and Biochemistry’s policy at http://chemistry.cofc.edu/documents/Scientific_Integrity_2011.pdf.

**Email and contact:** As stated, my office hours are open-door times. I may need to email the class list should changes to the course be required or other circumstances arise. Email is considered an official communication method at the College of Charleston, and all students are expected to frequently if not daily check their official CofC email account to ensure that no announcements or messages regarding this course (or any other for that matter) are not missed. With regard to any extenuating circumstances, you must contact me in advance. *After-the-fact notice for a missed exam or assignment will not be accepted*, excepting instances where the student has contacted the Dean’s office according to College policy.

**Electronic devices in the classroom:** Be respectful and keep your phones turned off during lectures. So long as they are not a distraction to others in the class, using a laptop or tablet to assist you with taking notes is completely fine – this policy is subject to change should circumstances require it. However, during exams, all non-calculator electronic devices are prohibited (this means smartphones, tablets, laptops, etc.). Smartphones may not be used as calculators during exams.

**Components:**

- **Exams:** Students will be given four midterm exams. Each midterm will be out of 100 points. If a student completes all of the midterm exams, then the final exam grade may replace their lowest exam score, provided it is higher than the average score of their other exams.

- **Graded Problem Sets:** In order to familiarize students with exam format and question types, four written problem sets will be given out and collected *one week after they are assigned* at the beginning of class. Late assignments will not be accepted. Additionally, four online sets of problems will be assigned through Connect, derived from your text material. Pay attention to the posted due dates for these online assignments. All problem sets will be scaled with homework to be worth an exam grade.

- **Final Exam:** The final is the American Chemical Society Organic Chemistry Exam and all sections will take it at the end of the semester. It will be weighted to 150 points (one and a half midterm exams).

- **Quizzes:** Brief quizzes will be unannounced and given at various points during the semester. I will administer as many as I feel are necessary to gauge students’ grasp of the material. Quizzes will be scaled with homework to be worth an exam grade.

- **Book Problems:** Book problems within each chapter and at the end of each chapter are not specifically assigned. However, it is STRONGLY encouraged that students work *all of the problems in the text* for a given chapter. I encourage you all to have a separate notebook in which you solve problems during and after your reading of the text. Problem-solving this semester should be a *continuous, almost daily exercise*. These are not directly incorporated into your grade, however, the most successful students typically do work through all of the book problems. Students who do not work large numbers of problems are historically less successful in the course.
• **Extra Credit:** Students can earn up to five points of extra credit for each exam by preparing a “student-solved problem” from the end of one of the chapters covered in the lead up to that given exam. Students are expected to provide a ChemDraw answer to a synthesis or mechanism problem and a written explanation of the answer in the technical language of organic chemistry. Problem selection and answer submission instructions can be found on OAKS.

**Final Grade Calculation:**

Option 1 – All exam scores are used.
- 4 midterm exams = 400 points
- Final exam = 150 points
- Scaled homework & quizzes = 100 points

Option 2 – Final exam score replaces lowest score.
- 3 highest midterms = 300 points
- Final exam = 250 points
- Scaled homework & quizzes = 100 points

650 points total (20 points possible extra credit via a student-solved problem)

**Grading Scale:** There will be no rounding of scores. A score of 92.99 remains an A-, an 89.99 remains a B+.

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<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93-100 %</td>
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<tr>
<td>A-</td>
<td>90-92 %</td>
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<tr>
<td>B+</td>
<td>87-89 %</td>
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<td>B</td>
<td>83-86 %</td>
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<td>B-</td>
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<td>C+</td>
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<td>C</td>
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<td>C-</td>
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<td>D-</td>
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**Student Learning Outcomes and Topical Outline**

**Student Learning Outcomes:**

- Demonstrate intermediate communication skills within organic chemistry for example structure, nomenclature, mechanisms, reaction schemes.
- Draw and interpret mechanisms for organic reactions of increased sophistication.
- Integrate knowledge and principles of organic reactions and reactivities to make reasonable predictions about likely outcomes when presented with related chemistry or retrosynthetic schemes.

**Course Topics Outline:**

- Chapter 13: Electrophilic and Nucleophilic Aromatic Substitution
- Chapter 14: Spectroscopy
- Chapter 15: Organometallic Compounds
- Chapter 16: Alcohols, Diols, and Thiols
- **Exam 1**
- Chapter 16: Alcohols, Diols, and Thiols
- Chapter 17: Ethers, Epoxides, and Sulfides
- Chapter 18: Aldehydes and Ketones: Nucleophilic Addition to the Carbonyl Group
- Chapter 19: Carboxylic Acids
- **Exam 2**
- Chapter 19: Carboxylic Acids
- Chapter 20: Carboxylic Acid Derivatives: Nucleophilic Acyl Substitution
- Chapter 21: Enols and Enolates
- **Exam 3**
- Chapter 22: Amines
- Chapter 23: Phenols
- Special Topics
- **Exam 4**
Course Introduction and Some Tips For Success

As you came to the end of your first semester of organic, you were introduced to a significant number of reactions and the concept of organic synthesis – the use of sequences of reactions in combination to construct more complex molecules. Importantly, this was done only following a rigorous course in the underlying concepts that control organic reactions (recall the first couple units of Chem 231 – bonding models, intermolecular forces, conformation, etc.). In this course we continue your journey and training in organic chemistry in light of reactions of increasing mechanistic complexity and increasing usefulness in the context of building organic molecules. You may ask, as my best friend once did in college “I want to be a surgeon, why in the world do I need this?” Just as we consider first semester organic chemistry to be training for your mind, so then is this semester. A good surgeon must be able to make the proper incisions with the proper tools and in the proper order; a successful organic chemist makes the right bonds with the right reactions and in the right sequence to yield a target molecule (thankfully, the stakes are much lower!). This course will encompass and build upon the information you learned in 231 and expand it to new reactions and a powerful spectroscopic technique called Nuclear Magnetic Resonance Spectroscopy, which forever transformed science and medicine as we know them. Just as with 231, here are a few tips and words of advice:

- Review old material throughout the course. You will have learned by now that this subject is very cumulative and very easy to get behind in. Be proactive about going over old material as it arises. In this light, I’ve supplied my old exams and problem sets as PDF files on our OAKS page that you can use for practice and review early in the semester.

- Do problems! *Repetitionem est mater studiorum* – Repetition is the mother of all learning. This saying is a LOT older than I am, and it is as true today as it ever was. The more practice you give yourself, the better your grasp of the material. You have the problem sets I write, online problems and additional resources through Connect, and, of course, the problems in your textbook. If you need/want more – come ask me!

- Go to class! I’ll be presenting the material to you, including some things that are not found in your text. Furthermore, each class is a chance for you to get better at taking notes and see the material in a different format from a book.

- Go to your peer mentor sessions. This is yet another venue for you to gain exposure to the material and can be a great resource. Use it!

- Read the book and read it *before the material is covered in class*. Reading a few sections ahead will better position you to ask questions during lecture – *I will always try to stop and make time to answer questions*. The text is a great primary resource where everything is laid out in writing in front of you. I recommend working the in-text problems as you read on a notepad or in a notebook next to you. That physical process of writing out the problems while reading can really help with your retention of the material.

- *Do problems!* I meant what I said – the more you do, the better you’ll do.

- Give the course and material the time it requires. To be successful and really learn the material, you will need to spend 3-5 hours outside of class for each hour that you are in it. At first this seems like a lot, but between reading the book and working problems, this amount of time will be easily met.

- Use me as a resource as well. I have four office hours per week and can meet by appointment. Please come by if you have questions on material that you may need reinforced (this is not a substitute for class, however). Please come by if you want to work through a couple problems. Please come by if you just think chemistry is cool and want to know more about something!

- **DO PROBLEMS!** There is a theme here, I swear….