CHEMISTRY 232, 3 credit hours, Summer 2020, SECTION 02, CRN: 30897

Instructor: Rick Heldrich, Ph.D.

Class Meeting Times: We will be having synchronous (real time) on-line classes using Zoom T-F each week from 8 am until 9:45 am. Our pace will be brisk, since each class period in the summer is roughly the equivalent of two class periods in a fall or spring semester. To participate in the on-line, live classes you will need a reliable internet connection and a computer with audio and video capability. Real time (synchronous) attendance is required.

Office Hours: by appointment, or by email (heldrichr@cofc.edu). I will normally be available after class until 4 pm Monday – Friday for zoom meetings, and email support (responding within 3 hours, but hopefully much sooner than that). On the weekends I will always try to respond within a day to any emails, generally checking for emails each morning and evening. However, I will not be available after 5 pm the day before a scheduled test or the final examination. That time belongs to you to give the material one last run down and to get rested and calmed before testing period begins the next day.

Final Exam: We will be using a timed, departmental multiple choice examination delivered on OAKS that covers the two semester, year-long introductory organic chemistry lecture sequence.

Learning Materials:

- (required): Francis A. Carey and Robert M. Giuliano. *Organic Chemistry*. 10th Ed. McGraw Hill, New York, 2017. Purchase of the textbook with access to McGraw Hill’s online learning Connect is required. If you purchased this access for CHEM 231 then you should not need to purchase it a second time, your access should be valid for the full year long course. The link to the publisher’s e-access for our section of this course is: https://connect.mheducation.com/class/heldrich-fjh-02 I have been told that the College of Charleston bookstore sells a package of the textbook, online Connect access and solutions manual that is the most cost effective.
- (required): OAKS. We will make extensive use of the College of Charleston Learning Management System, nick-named OAKS.
- (required): reliable high speed internet access and a personal computer with audio and video capability.
- (optional and recommended): ChemDraw, this is a Free download (http://chemistry.cofc.edu/current-students/resources/index.php) with CofC email.
Departmental Student Learning Outcomes for CHEM 232:
- 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

Co-Pre-requisite Policy: CHEM 231 and 231L are prerequisites of this course. CHEM 232L is not a pre- or co-requisite of this summer 2020 on-line CHEM 232 course, in fact the corresponding lab (CHEM 232L is not offered this summer). After you complete CHEM 232 this summer you are strongly advised to enroll in CHEM 232L at the next available offering, hopefully in the Fall of 2020.

Attendance Policy: Attendance to the live Zoom lectures is required. In addition, please take advantage of the OAKS posted tapings of Zoom lectures and chapter section summaries as additional support for learning the material.

Grade Scale:

- A, 100-93;  A-, 92-90;  B+, 89-87;  B, 86-83;  B-, 82-80;  C+, 79-77;
- C, 76-73;  C-, 72-70;  D+, 69-67;  D, 66-63;  D-, 62-60;  F, <60

Graded Work: There will be quizzes, four tests and a final examination. All of the quizzes, the tests and the final examination will be cumulative and timed. Only work that is submitted on time will be graded. The quizzes will be offered each Tuesday, Wednesday, Thursday and Friday on the Connect McGraw Hill site. Each quiz will need to be completed between 5 pm and 11:59 pm on the day it is offered. Points earned on quizzes in the week prior to a test will be added as bonus points to the test score. See the schedule at the end of this syllabus for dates. The tests and exam will be timed and while they will not take the entire assigned time, they must be completed between 8 am to 9:45 am for tests, 8 am to 11 am for the final. An excused rescheduling (justified with supporting documentation) will require my approval in advance by email. Grades of 0 will be recorded for all missed evaluations in this course. Local internet access issues will not be considered to be a justified cause for rescheduling. Systematic internet failure (for example the CoFC server, loss of city wide service from a major provider, will be considered if supported by appropriate documentation.)
Accommodations Policy: All evaluations for this course will be timed. This College abides by section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act. If you have a documented disability that may have some impact on your work in this class and for which you may require accommodations, such as extra time on evaluations, please see or contact an administrator at the Center of Disability Services/SNAP, 843.953.1431 or me so that such accommodation may be arranged. Any accommodation must be approved in advance by our SNAP office.

Evaluation Policy: In any online testing experience one of the biggest challenges we all face is to be sure that the evaluation and final course grade is a measure of what each person knows, not who each person knows. None of us should have to worry that any of us is getting unauthorized help on graded work. Whenever you submit your work for evaluation you must be truthful to yourself, your peers and to me that what you are submitting represents your knowledge. For this reason, the use of Chegg®, or Course Hero, or a personal tutor to provide you with answers (or to guide you to possible answers) for any work submitted for evaluation in this course is strictly prohibited. This applies to quizzes, tests and the final examination. It should go without saying, but it apparently must be said, that the standards of the College of Charleston Student Honor Code and Code of Conduct apply to this course. We will also abide by The Departmental Policy on Scientific Integrity, as posted on OAKS. The following information, pulled from the College of Charleston policy document for required syllabus content obviously applies to this course.

“Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when suspected, are investigated. Each incident will be examined to determine the degree of deception involved.

Incidents where the instructor determines the student’s actions are related more to misunderstanding and confusion will be handled by the instructor. The instructor designs an intervention or assigns a grade reduction to help prevent the student from repeating the error. The response is recorded on a form and signed both by the instructor and the student. It is forwarded to the Office of the Dean of Students and placed in the student’s file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XXF in the course, indicating failure of the course due to academic dishonesty. This status indicator will appear on the student’s transcript for two years after which the student may petition for the XX to be expunged. The F is permanent. Students can find the complete Honor Code and all related processes in the Student Handbook at: http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php.”
**OAKS:** I hope you find the material on our OAKS site to be useful. If you want more (or less, or perhaps a different organization) please let me know. Items are located under the content tabs as follows:

1. Topical outlines and video recordings of chapter section summaries are found under Content; Chapter by Chapter Details.
2. Lecture notes and recordings for each Zoom lecture will be posted by the day of the lecture under the tab Content, then Lecture Notes and Recordings.
3. CHEM 232 tests (including graded tests from this semester, with answers keys when they are available) are posted under Content: CHEM 232 Tests.
4. Prior quizzes for CHEM 232 are posted under Content: Paper Quizzes.
5. Spectroscopy review materials are posted under Content: Spectroscopy Review, with appropriate sub groupings (IR, MS, CMR, PMR, UV-Vis, 2D NMR, Using Spectra Data).
6. Discussion boards for our shared asynchronous conversions about topics that anyone of us might feel needs extra refinement are posted under Communication, Discussions, Peer to Peer Discussions for CHEM 232. Please post questions, request topics for discussion, or respond to concerns of others as the semester progresses. It is important that we all work together as a team this summer so that everyone can do their best.
7. Supplemental CHEM 232 handouts, that I hope you find useful, are under Content: Supplemental Handouts
8. Additional problems for CHEM 232 are posted under Content: Additional Problems for CHEM 232.
9. CHEM 231 review materials (old tests, alternative views, and additional problems) are posted under Content: CHEM 231 Review.

**Quizzes:** Quizzes will focus of material covered or planned to be covered in the lecture each day. Points earned on the quizzes will be used as extra credit points for the upcoming test. There is a required Flip Grid video assignment as the first quiz. See the news posting on the course OAKS site. Course Flip Grid site: [https://flipgrid.com/heldrich30897](https://flipgrid.com/heldrich30897)

**Grade Formula:** Each test will be 15% of the course grade and the final exam will be 40% of the overall course grade. If higher, your final exam grade will replace your lowest test grade. This means that the final exam could be as low as 40% or as high as 55% of your overall course grade. It also means that if your final test grade and your final exam grade are not your lowest grades, that a whopping 70% of your course grade can be determined on the last two days of the course. This is intentional, to reward you for putting it all together at the end of the course.
Tips for Success in On-Line Organic Chemistry: There is no magic pill that makes learning easy. That is the bad news. In this course, our tests will be designed to measure what has been learned, not how it was learned. That is the good news. The universally successful strategy to learning introductory organic chemistry is to use the information as you are trying to learn it. This might seem impossible, after all how can you use something before you learn how to use it? But let’s put it this way. When you were learning how to drive, did you learn more about driving by reading, or did you learn more by sitting behind the wheel and taking charge? You need to take ownership of learning the material, putting yourself in charge. Do not assume you understand anything just because it made sense while reading or listening. Prove to yourself that you understand the material by using what you just read or heard about, as soon as possible to solve a problem. Only then you will learn if you truly grasp the idea, or if maybe you misunderstood it or its value.

No one would take a driver’s license test before they had had practiced driving; it is no different when taking a test in introductory organic chemistry. But practice alone is not what it takes to pass or excel on tests. You must practice with the purpose of learning how to do it the right way. If during your practice driving in an empty parking lot you cannot pull cleanly in-between the lines of a parking spot, odds are pretty high the results of the driver’s test will not go well. There are lots of opportunities to test drive the material in introductory organic chemistry before getting evaluated for how well you have learned on a test. They are listed here in the recommended order in which they are done.

1. Each day, before every class and immediately afterward, work every in chapter problem as soon as that material has been covered (by your reading or the lecture)
2. Work any challenge problems presented during the lecture before the next lecture class.
3. Work problems from the end of the chapter in the text. If you do not have the time to do all the problems, do as many of each type as you can. Spend extra time on the type of problems that cause you the most trouble or that you are most afraid of facing on test day.
4. As soon as the lectures on a chapter have ended, start to take the chapter review quizzes posted on the Connect website, as often as you can. Each time you take a chapter review quiz you will get a different, randomized set of questions.
5. Work previous test questions that are posted on OAKS.
6. Find a study partner, each of you make up your own questions, share them with each other and then get together (zoom) to talk through them.
The art of studying organic chemistry is about learning how to work problems, and in doing them to make a self-assessment of your strengths and weaknesses. Then be confident in your strengths and put in the work needed to turn your weaknesses into strengths. And remember that I am available (by email or zoom or during lecture) and that I want to help you figure it all out as you go along. If you do not ask for my help outside of class, I cannot give it to you.

**Class Climate & Netiquette:** – As stated in the Student Handbook: “*a college classroom requires a higher level of courtesy than many people exercise in ordinary public space. Everyone in a classroom is there for the purpose of learning, and no one should be able to deprive another person of the chance to learn. Expressions of rudeness and even carelessness degrade the high purpose of learning that should be paramount in a college classroom.*” This applies equally to the online classroom. Don’t be a troll!

To maintain a respectful and supportive environment, please uphold these rules of netiquette. Netiquette is network etiquette, the do's and don'ts of online communication.

- Be kind and ethical. Be forgiving. Be brave. Respect disagreement
- Be aware of how your communication may be perceived by others.
- Do not write in ALL CAPS – this is perceived as yelling.
- Cite your sources.
- Help each other. We are much stronger and more successful as a united and supportive group.

**Technical Difficulties/FAQs:** If you have questions or problems related to the course, please follow the communication procedures noted above. If you have technical problems, please contact Student Computing Support or Helpdesk using these methods:

For **Student Computing Support** (for questions on campus about computing): (1) 843-953-5457; (2) studentcomputingsupport@cofc.edu; (3) blogs.cofc.edu/scs

For **Helpdesk** (other on campus services for IT): (1) 843-953-3375 (2) http://helpdesk@cofc.edu (3) it.cofc.edu/help/helpdesk

For **McGraw-Hill Connect** – Customer Support (for Connect online assignments and e-text resources): (1) (800) 331 5094 (2) https://mhedu.force.com/CXG/s/

For **Zoom** (for individual meetings or meetings with small groups):
(1) https://support.zoom.us/hc/en-us/articles/206175806-Top-Questions; (2) https://support.zoom.us/hc/en-us

It is important to resolve technical problems swiftly, so do not delay getting help when required. Computer failure or browser issues do not constitute an excuse for not completing assignments.
**Schedule (Subject to change.):**

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<td>July 7 C13.19 – C14 (IR, MS) <strong>Last Day for Drop/Add from Summer II</strong></td>
<td>July 8 C14 (NMR)</td>
<td>July 9 C14 (combined analysis) – C15.7</td>
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<td>July 13 <strong>Test I (through C15)</strong></td>
<td>July 14 C16</td>
<td>July 15 C16 &amp; C17</td>
<td>July 16 C17 &amp; C18</td>
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<td>July 20 <strong>Test II (through C18)</strong></td>
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<td>July 27 <strong>Test III (through C21.4) Last Day to withdraw from Summer II</strong></td>
<td>July 28 C21</td>
<td>July 29 C21 &amp; C 22</td>
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<td>Aug 3 <strong>Test IV (through C23)</strong></td>
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