CHEMISTRY 231, Spring 2021, SECTION 02, 3 credits:
(As of Jan. 3rd, 2021, the syllabus is subject to change by the instructor.)

Instructor: Rick Heldrich, Ph.D.     Office: SSMB 108
Research Lab: SSMB 123 & SSMB 343
Office Hours: 7-8 pm W by zoom; or by individual appointment by zoom;
or by email: (heldrichr@cofc.edu)

Teaching Schedule:
Tuesday/Thursday: 231 02; 9:25 am - 10:40am; SSMB 129  
Tuesday: 232 L01; 12:30 pm - 3:30 pm; SSMB 105
Thursday: 232 L05; 12:30 – 3:30 pm; SSMB 105

Final Exam: We will be using a timed, departmentally standardized examination for the 1st semester introductory organic chemistry lecture and laboratory course on Thursday, April 29th, 8 am to 10 am.

Class Schedule: The course schedule is on the last page of this syllabus.

Office Hours: All office hours will be conducted using zoom (Zoom ID for Office Hours: 241-732-140). Office hours may be made for an individual or a group by appointment. I will hold one mass zoom office hour each week, tentatively scheduled for 7-8 pm on Wednesday. Please see my teaching schedule to find out when I am likely to be available during the week between 8 am and 5 pm. I will generally not be available on any day before 8 am or after 5 pm. During the week I will try to respond to all emails 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.

Final Exam: The Final Exam will be a timed, cumulative test on OAKS. Material from the laboratory course may also be included. Absence from the final exam will result in the grade of "X" being assigned which converts to an "F" within 48 hours unless an excused absence has been granted by the dean in the Office of Undergraduate Studies. Requests for an alternate final exam time must be processed through the Office of Undergraduate Studies no later than 5 p.m. on the last day of class.

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 recommended although no course grades will be based on the use of the connect website. If you purchase this access for CHEM 231 then you should not need to purchase it a second time for CHEM 232, 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/r-heldrich-fall-2020-01--04-1  The College of Charleston bookstore sells a package of the textbook, online Connect access and solutions manual that is 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 that can be used with Respondus (e.g., not a Chromebook).

• **(required)**: Clutch Prep Video Program: used for video-based homework

• **(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 231:**

• 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

**Co-Pre-requisite Policy:** Chemistry 112/112L are prerequisites of this course, and chemistry 231L is a co-requisite for Chemistry 231. If you are repeating the lecture or lab and do not need to repeat the co-requisite course you must remedy this with the department chair before the close of Drop/Add. The last day to Drop/Add is on Tuesday, Jan. 19th.

**Attendance Policy:** Synchronous attendance to lecture either by Zoom or in person is required. Even with class size restrictions forced on us by COVID social distancing standards, it will be possible for every student to attend class in-person (for lectures or tests) assuming in-person instruction is allowed. *For that reason, priority attention during lecture will be given to those attending in person.* Unless in class instruction is suspended, all tests and the final examination will be conducted in person. If the College of Charleston closes and members of the community are evacuated due to inclement weather, students are responsible for taking course materials with them to continue with course assignments consistent with instructions provided. If in-person classes are suspended or not resumed as planned, we will continue with our schedule using synchronous zoom in place of in person instruction.

**Zoom Protocol:** Enter the zoom site for our lecture using the access provided through our course OAKS site. When attending by Zoom, turn your video on so everyone in the class can see who you are. When attending by Zoom, turn your audio off, but be prepared to turn it on to ask questions or to respond to questions asked of you. Class sessions will be recorded (video and audio). By attending and remaining in this class, the student consents to being recorded. Recorded class sessions are for instructional use only and may not be shared with anyone who is not enrolled in the class.

**Continuity of Learning:** Due to possible social distancing requirements, this class will include a variety of online and technology enhanced components to reinforce continuity of learning for all enrolled students. Before the drop/add deadline, students should decide whether the course plan on the syllabus matches their own circumstances.

**Inclement Weather, Pandemic or Substantial Interruption of Instruction:** If in-person classes are suspended, we will continue the course with online instruction as scheduled with Zoom, homework with ClutchPrep, and testing with OAKS. For that reason, all students must
have reliable internet access and a computer equipped with a web camera, microphone, and has reliable Internet access. Access to a printer/scanner is highly recommended.

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 tests and the final examination will be cumulative and timed. Only work that is submitted on time will be graded.

The tests and exam will be taken during the scheduled class period, in person. If in person instruction is suspended, or if I am not able to attend in person, then the test or exam will be switched to online. If you as an individual student, cannot attend in person due to illness, then you must take the test or exam on line. In either case, in person or on-line, the test or exam will be timed and all parts of the test or exam must be completed within the designated class time or final examination period. I reserve the right to verify and adjust any grades by oral examinations conducted on Zoom as needed.

If taking a test on line, then before the test you must find a way to scan or take a photo of your work and quickly upload it to an OAKS discussion or dropbox. I recommend Adobe Scan or a similar program. Please familiarize yourself with this app or a similar app before using it for an exam: https://www.youtube.com/watch?v=HE3IRDblu8U&feature=emb_logo

An excused rescheduling of any graded assignment (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, including a missed test without prior notification of your illness. For remote work, 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.)

Clutch Prep makes textbook-specific video-based concept and practice content for this course. This semester our class will be using Clutch Prep video for graded homework in this class. You will have graded homework assignments associated with each test this semester. If done properly, doing this will result in a base test score of 12, with a possible high test score of 112. You will get credit based on your completion of attempting the problems and watching all of the video solutions. If you do not watch each part of the ClutchPrep video assignments in its entirety you will not receive credit for that portion of the assignment.

Do not assume that the test questions will be similar to the ClutchPrep homework assignments, or the weekly OAKS quizzes. Old tests posted on OAKS are a far better representation of the type of problems and level of understanding ultimately expected of you when taking tests. However the weekly quizzes, ClutchPrep homework, and other ClutchPrep video lessons should be a very useful stepping stone to help you to prepare to solve problems on tests.

Use This Link For Access to ClutchPrep: https://www.clutchprep.com/join/HELDRICH2
**Accommodations Policy:** Most of the 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 and have them contact me so that such accommodation may be arranged. Any accommodation must be approved in advance by our SNAP office.

**Evaluation Policy:** With on line evaluations, one of the biggest challenges we will 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. No one should have to worry that anyone 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, the College CSL, or other person who is not currently enrolled in CHEM 231 at the College of Charleston, 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 (see below), 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](http://studentaffairs.cofc.edu/honor-system/studenthandbook/index.php).

**OAKS:** including Gradebook, will be used for this course throughout the semester to provide the syllabus and class materials and grades for each assignment, which will be regularly posted.
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. Policy documents like the syllabus are located under Content, then Section Specific Information.
2. Topical outlines for each chapter are found under Content; Chapter Outlines.
3. Lecture notes and recordings for each Zoom lecture and problem solving session will be posted by the date of the presentation under the tab Content, then Lecture Notes and Recordings.
4. There are some section by section zoom recordings (Content, Chapter Section Summaries) if you want to review material in lecture format in smaller bites of information. If you find a section in a chapter particularly troubling and would like a zoom video to cover it, please let me know. You may also find the brief video presentations on ClutchPrep to be a very helpful study tool.
5. CHEM 231 tests (including graded tests from this semester, with answers keys when they are available) are posted under Content: Old Tests.
6. Prior quizzes for CHEM 231 are posted under Content: Quizzes from an earlier semester.
7. Spectroscopy review materials are posted under Content: Spectroscopy Review.
8. Discussion boards is posted under Communication, Discussions. 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 so that everyone can do their best.
9. Supplemental CHEM 231 handouts, that I hope you find useful, are under Content: 231 Handouts.

**Quizzes:** There is a required Flip Grid video assignment as a required quiz in the course. See the news posting on the course OAKS site. You must do this quiz before you can earn credit for any graded work in this course https://flipgrid.com/heldrich231202120 (use your CofC email to log in).

All other quizzes will be timed OAKS quizzes focused on each chapter. The chapter OAKS quiz questions will not be of the same style as you might expect on the tests or the final exam. The average of your quiz grades (determined by dropping the lowest quiz grade from each set of chapter quizzes and using the flip grid quiz) will be used as part of your overall course grade.

**Grade Formula:** Each test and the quiz average will be 15% of the course grade and the final exam will be 25% of the overall course grade. If higher, your final exam grade will replace either your lowest test grade or your quiz average (whichever is lower). This means that the final exam could be as low as 25% or as high as 40% 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 55% of your course grade can be determined at the very end of the course. This is intentional, to reward you for putting it all together.
Tips for Success in On-Line Organic Chemistry: There is no magic pill that makes learning organic chemistry 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 sit behind the wheel and drive, did you learn more about driving by reading, hearing a series driver’s education lectures, watching someone else drive, 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 the driver’s seat. Do not assume you understand anything just because it made sense while watching, reading or listening. Prove to yourself that you understand the material by using what you just read, watched 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 road 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 my recommended order in which they are done.*

1. Each day, after every class, work every in chapter problem as soon as that material has been covered.
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. Do the ClutchPrep Homework assignments. And then use ClutchPrep to supplement your understanding of the material. If you perceive a difference between ClutchPrep, the text, or the lecture, bring it up with me to get things sorted out.
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.

*Go to the results of this anonymous class survey from fall 2020 to get ideas from students taking this course on how to study and what is or is not important for your success in this course: https://forms.gle/iPZjeQesBGQVB6fS8

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 remedy your weaknesses.
**Email:** Email is considered an official method for communication at the College of Charleston. Official College of Charleston email accounts are automatically assigned to all students upon acceptance at the College. Students are expected to check their College of Charleston official email on a frequent and consistent basis in order to remain informed of College related communications. Checking email on a daily basis is recommended.

**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.

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 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.

**Zoom Protocol:**

- If joining the class lecture remotely, do so through OAKS. You are expected to join the Zoom class at least a minute before it is scheduled to begin. If you join using improper credentials and or you are put into a waiting room after the class begins, you are at risk of not being recognized and thus not be admitted to the zoom lecture during the class.
- When attending by Zoom, turn your video on so everyone in the class can see who you are.
- When attending by Zoom, turn your audio off, but prepared to turn it on to ask questions or to respond to questions asked of you.
- Class sessions will be recorded (both audio and video). By attending and remaining in this class, the student consents to being recorded.
- Recorded class sessions are for instructional use only and may not be shared with anyone who is not enrolled in the class.

**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** (on campus IT services): (1) 843-953-3375; (2) https://it.cofc.edu/contact/index.php
For *McGraw-Hill Connect* – Customer Support: (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

For *ClutchPrep*: use chat link on the ClutchPrep website: https://www.clutchprep.com/join/HELDRICH2
**Schedule** *(Subject to change, no schedule changes are anticipated based on the institutional decision to go from online to in-person instruction):*

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<td>C7/C8</td>
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<td>C6</td>
<td><strong>Test 2 (C1- C6)</strong></td>
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