CHEM:2220 ORGANIC CHEMISTRY II FALL, 2022

INSTRUCTORS: Dr. Rebecca Laird; rebecca-laird@uiowa.edu;


OPTIONAL MATERIALS: A "Student Study Guide/Solutions Manual" for the textbook is also available which contains answers to the problems in the text. The bookstore offers model kits and we strongly suggest purchasing one. It will greatly help you to “see” organic molecules in three-dimensions.

LECTURE*: MWF 9:30-10:20 in W290 CB (wearing masks is encouraged)

* Lectures will also be recorded using UICapture/Panopto. These recordings will be posted to our course ICON site. Attendance in lecture is not required nor counted as part of a student’s grade.

The University of Iowa strongly encourages students, faculty, and staff to be vaccinated against COVID-19. The university also encourages students, faculty, and staff to wear a face mask while on campus, and strongly encourages the use of face masks in all classroom settings and during in-person office hours. However, face mask usage is not required except on CAMBUS and in specified research and healthcare settings.

WEB SITE: Online content for the course will be managed using the ICON (Iowa Courses Online) system (http://icon.uiowa.edu/index.shtml). The site will be used to post copies of the slides used in class, practice exams, exam keys, and announcements.

OFFICE HOURS:
Laird: Mon. 10:45am -11:30am and Wed. 11:45am-12:30pm via zoom. Zoom link found under Zoom tab of ICON site

COURSE DESCRIPTION: This course is intended for science majors (botany, biology, microbiology, or chemistry), pre-pharmacy, pre-medical, pre-dental, or pre-veterinary students, or anyone planning to take two years of chemistry. This course is a continuation of CHEM:2210. It is organized around the concept of the functional group, but includes di- and poly-functional molecules. Methods for establishing the structure of organic compounds are presented, with an emphasis on NMR and IR spectroscopy and mass spectrometry. The chemistry of carbonyl compounds, carboxylic acids, carboxylic acid derivatives, amines, and heterocyclic compounds is discussed. Finally, the organic chemistry of carbohydrates and amino acids is presented. There are three lectures each week by the professor and a number of discussions sections by TAs.
**COURSE GRADES:** Final course grades will be assessed based on student’s performance in the following items:

<table>
<thead>
<tr>
<th>Graded Item</th>
<th>Points</th>
<th>Percent of total grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 exams (100 points each)</td>
<td>300 points</td>
<td>57%</td>
</tr>
<tr>
<td>9 homework assignments (10 points each)</td>
<td>90 points</td>
<td>17%</td>
</tr>
<tr>
<td>Weekly participation questionnaires (2 points each)</td>
<td>30 points</td>
<td>6%</td>
</tr>
<tr>
<td>Course Expectations Quiz</td>
<td>10 points</td>
<td>2%</td>
</tr>
<tr>
<td>Final Exam (ACS Organic Chemistry Two-Term Standardized Exam)</td>
<td>100 points</td>
<td>18%</td>
</tr>
</tbody>
</table>

**Total:** 530 points 100%

For our course, the College of Liberal Arts and Sciences strongly suggests a Criterion-Referenced grading scheme with the percent equivalencies shown below.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>100-92%</td>
</tr>
<tr>
<td>B+</td>
<td>91-85%</td>
</tr>
<tr>
<td>B</td>
<td>84-80%</td>
</tr>
<tr>
<td>C+</td>
<td>79-74%</td>
</tr>
<tr>
<td>C</td>
<td>73-68%</td>
</tr>
<tr>
<td>D+</td>
<td>70-64%</td>
</tr>
<tr>
<td>D</td>
<td>67-61%</td>
</tr>
<tr>
<td>C-</td>
<td>63-56%</td>
</tr>
<tr>
<td>D-</td>
<td>57-50%</td>
</tr>
<tr>
<td>F</td>
<td>49-0%</td>
</tr>
</tbody>
</table>

All of your scores will be posted on ICON.

**EXAM SCHEDULE:** Exams dates, times and places are given below.

| Exam | Date | Time       | Location                  |
|------|------|------------|                          |
| 1    | Feb. 16 | 6:30-8:00 pm | W10 PBB/100 PH           |
| 2    | Mar. 30 | 6:30-8:00 pm | W10 PBB/100 PH           |
| 3    | Apr. 27 | 6:30-8:00 pm | W10 PBB/100 PH           |
| Final| TBD   | TBD         | TBD                      |

**EXAMINATIONS:** Exams are closed-book. Leave textbooks, notes, etc., at home or in the front of the room before the start of the exam. No electronic devices are allowed during exams, including cell phones. There will be three exams of 90 minutes each and a 110 minute final. The exams will be a mixture of multiple choice and free response style questions. Exams will be scanned into gradescope and graded using the gradescope software. Exams and grading marks will be visible to students through gradescope. (More information regarding gradescope will be given closer to the first exam date). Note: Laird will not be able to not respond to emails nor hold meetings regarding exam material/questions beginning 24 hours prior to exams.

Each exam is comprehensive but will emphasize material since the previous exam. Organic chemistry builds on what was learned before, it is important to continually add to your fountain of knowledge. Exams must touch on material that was learned earlier in the semester, but in most instances we will use concepts that we covered since the previous exam. It is wise to review all of the material since Day 1 for each exam.
Anything that is covered through the end of class on the day before the exam is fair game for the exam. I more or less follow the book, so you will be able to determine where we stopped before the exam. If you have any doubt, study for the whole chapter that we are working on.

The final exam will be ACS Organic Chemistry Standardized Exam for a two-semester course. The exam will be graded using the percentile rank from the student’s raw score, where the percentile rank becomes the score out of 100.

MAKE-UP EXAMS: Make-up exams will be given under exceptional circumstances only. Under no circumstances will a make-up be given to take the place of a regular exam taken earlier. To sign up for a make-up exam, email the chemistry center with the reason for your absence.

FINAL EXAMINATIONS: No student is required to take more than two examinations in one day. A potential problem may be eased by students closely checking the exam schedule. An undergraduate student who has (a) two examinations scheduled for the same period or (b) more than two examinations scheduled for the same day may schedule an alternate time for the final exam.

REGRADING OF EXAMS: If you feel that a mistake has been made in grading your exam, resubmit the question for regrading using gradescope. Write a one sentence explanation of what you believe was incorrectly graded for that question. I reserve the right to regrade the entire exam. Exams for regrading must be turned in by the announced date. No regrades will be granted after this time. This regrading policy will be strictly enforced. This is the only way that you can get consideration for regrading.

HOMEWORK: The online homework on Achieve will force you to draw structures, learn concepts, and prepare you to excel in this course. These problems are critical to learning chemistry, so we will take advantage of Achieve.

We will post one homework assignments for each chapter (chapter 14-22) the due date and time will be clearly listed in achieve and on the course schedule. You should assume we are going to have regular homework assignments and look on Achieve for them.

The homework questions will be assigned at random from a pool of questions so if students wish to work together, they may still get different questions. Because of this, we are assigning the homework as “full collaboration”. That phrase means that you may work with your classmates, friends, tutors, or anyone else to complete the homework. You may work alone if you wish, but no penalty will be given to those who work together. This policy does not mean that you should copy someone else’s homework; that is not allowed and will be viewed as cheating. You must make an honest effort to complete the homework and understand the answers. One good method to know if you understand the answers is to ask yourself if you can reproduce your homework if you needed to repeat the assignment alone. If you can reproduce your homework, you have some level of understanding of it. Homework is an excellent vehicle for learning class material, take advantage of this opportunity and you will do well on the exams.
The instructions and due date for each assignment will be clearly listed on each assignment. No late homework will be graded nor will extensions be given without University approved reason. If you anticipate not being able to complete an assignment by the due date, please reach out to us for further discussion.

PARTICIPATION QUESTIONNAIRES: Over the duration of the semester, I will release 15 participation questionnaires through the course ICON site. These questionnaires will be used to seek out feedback from students on topics such as: current study tools being used, topics students are struggling with most, etc. Questions will be graded on completion, not on “right/wrong.” Each questionnaire will be worth 2 points. The close date (due date) for each questionnaire will be clearly listed on the ICON site. Because these questionnaires are meant to provide “real-time” feedback relevant to the course at its current state, no late questionnaires will be graded, nor will extensions be given without University approved reason. If you anticipate not being able to complete an assignment by the due date, please reach out to us for further discussion.

DISCUSSION SESSIONS:
Our course TAs will lead these discussions. This time is reserved for problem solving, discussion of lecture material, and explanations of exam answers. We strongly encourage you to attend these sections as the TAs are excellent and can help you learn the material. Their email addresses and office hours will be given on ICON. At this time, all discussions will be held face-to-face. Wearing masks is encouraged.

COURSE EXPECTATIONS QUIZ
The course expectations quiz is a short, multiple-choice quiz given during the first week of classes. The quiz will ask questions regarding topics covered in the course syllabus. The quiz will be found on the ICON course page under the quiz tab.

ZOOM: If course components are migrated to an online format, live sessions will be held via zoom. To maintain professionalism, the following rules will be followed by all Zoom participants:
- No profanity or vulgar language will be allowed
- Appropriate dress is required any time video is used
- Keep all posts and comments related to course work
- Only UI students enrolled in the course may join, participate, or be visible during our zoom sessions.

We reserve the right to bar any student who does not adhere to these rules after the first offense.

ADMINISTRATIVE INFORMATION from CLAS:

DROP-ADD SLIPS: For information on making any changes in registration, please visit the Office of the Registrar’s site listed below:
https://registrar.uiowa.edu/changes-registration

COURSE INFORMATION: Inquiries about details of the course (e.g. extra copies of the syllabus, exam times and places, times and places of discussion sessions, etc.) should be taken to the Chemistry Center (chemistry-center@uiowa.edu).
DROP DATES:  
**Deadline Date:** January 31, 2022: last day to drop a course without a W.  
**Deadline Date:** April 4, 2022: Last day to drop without Dean’s approval.

DEPARTMENTAL HOME:  
Department of Chemistry

DEPARTMENTAL CONTACT INFORMATION:  
Len MacGillivray, DEO, E331 CB;  
Lindsay Elliott, Secretary to the Chair, E331 CB, 319-335-0200.

ADMINISTRATIVE HOME  
The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook at http://clas.uiowa.edu/students/handbook.

ATTENDANCE AND CLASSROOM EXPECTATIONS  
Students are responsible for attending class and for knowing an instructor’s attendance policies, which vary by course and content area. All students are expected to attend class and to contribute to its learning environment in part by complying with University policies and directives regarding appropriate classroom behavior or other matters.

ABSENCES  
Students are responsible for communicating with instructors as soon they know that an absence might occur or as soon as possible in the case of an illness or an unavoidable circumstance. Students can use the CLAS absence form to help communicate with instructors who will decide if the absence is excused or unexcused; the form is located on ICON within the top banner under "Student Tools.” Delays by students in communication with an instructor could result in a forfeit of what otherwise might be an excused absence (https://clas.uiowa.edu/students/handbook/attendance-absences).

ABSENCES: ILLNESS, UNAVOIDABLE CIRCUMSTANCES, AND UNIVERSITY SPONSORED ACTIVITIES  
Students who are ill, in an unavoidable circumstance affecting academic work, or who miss class because of a University sponsored activity are allowed by UI policy to make up a missed exam. Documentation is required by the instructor except in the case of a brief illness. Students are responsible for communicating with instructors as soon as the absence is known (https://opsmanual.uiowa.edu/students/absences-class#8.1 ).

ABSENCES: HOLY DAYS  
Reasonable accommodations are allowed for students whose religious holy days coincide with their classroom assignments, tests, and attendance if the student notifies the instructor in writing of any such religious Holy Day conflicts within the first days of the semester and no later than the third week. (See the UI Operations Manual, https://opsmanual.uiowa.edu/students/absences-class#8.2 ).
ABSENCES: MILITARY SERVICE OBLIGATIONS
Students absent from class due to U.S. veteran or U.S. military service obligations (including military service-related medical appointments, military orders, and National Guard Service obligations) must be excused without penalty. Instructors must make reasonable accommodations to allow students to make-up exams or other work. Students must communicate with their instructors about the expected possibility of missing class as soon as possible. (For more information, see https://opsmanual.uiowa.edu/iv-8-absences-class%C2%A0).

ACADEMIC INTEGRITY
All undergraduates enrolled in courses offered by CLAS have in essence agreed to the College's Code of Academic Honesty. Academic misconduct affects a student's related grade and is reported to the College which applies an additional sanction including suspension. Outcomes about misconduct are communicated through UI email (https://clas.uiowa.edu/students/handbook/academic-fraud-honor-code).

ACCOMMODATIONS FOR DISABILITIES
UI is committed to an educational experience that is accessible to all students. A student may request academic accommodations for a disability (such as a mental health, attention, learning, vision, and a physical or health-related condition) by registering with Student Disability Services (SDS). The student is then responsible for discussing specific accommodations with the instructor. More information is at https://sds.studentlife.uiowa.edu/.

CLASS RECORDINGS: PRIVACY AND SHARING
Some sessions of a course could be recorded or live-streamed. Such a recording or streaming will only be available to students registered for the course. These recordings are the intellectual property of the faculty, and they may not be shared or reproduced without the explicit written consent of the faculty member. Students may not share these sessions with those who are not enrolled in the course; likewise, students may not upload recordings to any other online environment. Doing so is a breach of the Code of Student Conduct and in some cases is a violation of the Federal Education Rights and Privacy Act (FERPA).

COMMUNICATION AND THE REQUIRED USE OF UI EMAIL
Students are responsible for official correspondences sent to the UI email address (uiowa.edu) and must use this address for all communication within or with UI (Operations Manual, III.15.2).

COMPLAINTS ABOUT ACADEMIC MATTERS
Students with a complaint about a grade or a related academic issue should first visit with the instructor and then with the course supervisor (if one is assigned), and next with the Chair of the department or program offering the course. If not resolved, students may bring their concerns to the College of Liberal Arts and Sciences: https://clas.uiowa.edu/students/handbook/student-rights-responsibilities.

FINAL EXAMINATION POLICIES
The final exam schedule is published during the fifth week of the fall and spring semesters or on the first day of summer classes; students are responsible for knowing the date, time, and place of their final exams. Students should not make travel plans until knowing this information. A student
with exams scheduled on the same day and time or who have more than two final exams on the same day should visit this page for how to resolve these problems by the given deadline: https://registrar.uiowa.edu/makeup-final-examination-policies. No exams may be scheduled the week before finals; some exception, however, have been made for labs, language courses, and off-cycle courses (https://registrar.uiowa.edu/final-examination-scheduling-policies).

FREE SPEECH AND EXPRESSION
The University of Iowa supports and upholds the First Amendment protection of freedom of speech and the principles of academic and artistic freedom. We are committed to open inquiry, vigorous debate, and creative expression inside and outside of the classroom. Visit Free Speech at Iowa for more information on the University’s policies on free speech and academic freedom (https://freespeech.uiowa.edu/).

NONDISCRIMINATION IN THE CLASSROOM
The University of Iowa is committed to making the classroom a respectful and inclusive space for people of all gender, sexual, racial, religious, and other identities. Toward this goal, students are invited in MyUI to optionally share the names and pronouns they would like their instructors and advisors to use to address them. The University of Iowa prohibits discrimination and harassment against individuals on the basis of race, class, gender, sexual orientation, national origin, and other identity categories set forth in the University’s Human Rights policy. For more information, contact the Office of Equal Opportunity and Diversity (https://diversity.uiowa.edu/eod; +1 319 335-0705 or diversity.uiowa.edu)

Respect for Diversity: It is our intent that students from all diverse backgrounds and perspectives be well-served by this course, that students’ learning needs be addressed both in and out of class, and that the diversity that students bring to this class be viewed as a resource, strength and benefit. It is our intent to present materials and activities that are respectful of diversity: gender, sexual orientation, disability, age, socioeconomic status, ethnicity, race, culture, perspective, and other background characteristics. Your suggestions about how to improve the value of diversity in this course are encouraged and appreciated. Please let us know ways to improve the effectiveness of the course for you personally or for other students or student groups. In addition, in scheduling exams, the University has attempted to avoid conflicts with major religious holidays. If, however, exams or major deadlines have been scheduled in such a way that creates a conflict with your religious observances, please let us know as soon as possible so that we can make other arrangements.

SEXUAL HARASSMENT
Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community must uphold the UI mission and contribute to a safe environment that enhances learning. Incidents of sexual harassment must be reported immediately. For assistance, please see https://osmrc.uiowa.edu/.

MENTAL HEALTH
As a student you may experience a range of issues that can cause barriers to learning. These might include strained relationships, anxiety, high levels of stress, alcohol/drug problems, feeling down, or loss of motivation. University Counseling Services is here to help with these or other issues you
may experience. You can learn about the free, confidential mental health services available on campus by calling 319-335-7294 or visiting https://counseling.uiowa.edu/. Help is always available.

Students are always welcome to reach out to us, but please note that the instructor and TA’s are mandatory reporters. If a student does not wish to disclose information to us, but is still in need to help, we highly recommend University Counseling Services as a confidential source of aid.