

# Chemistry 2211 – Modern Organic Chemistry I

## Spring 2019

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### **Instructors:**

Dr. Richard Hubbard	<b><u>Office:</u></b> SciLC 119B <b><u>Office Hours:</u></b> TWR 2:00 - 3:00 pm	<b><u>email:</u></b> chemburn@uga.edu <b><u>Phone:</u></b> (706) 542-1974
Dr. Sue Ellenberger	<b><u>Office:</u></b> Chemistry 604 <b><u>Office Hours:</u></b> MW 4:30-6:30 pm (SLC 288)	<b><u>email:</u></b> suzanne.ellenberger@uga.edu <b><u>Phone:</u></b> (706) 542-6225
Dr. Rupa Gokal	<b><u>Office:</u></b> Chemistry 509 <b><u>Office Hours:</u></b> TBA	<b><u>email:</u></b> rugokal@uga.edu <b><u>Phone:</u></b> TBA

### **Lectures:**

Dr. Hubbard (23395)	MWF 11:15 am - 12:05 pm	<b><u>Room:</u></b> SciLC 085
Dr. Ellenberger (23396)	MWF 3:35 pm - 4:25 pm	<b><u>Room:</u></b> SciLC 285
Dr. Gokal (50930)	TR 3:30 pm - 4:45 pm	<b><u>Room:</u></b> SciLC 085

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**Required Textbook:** *Organic Chemistry* by Paula Yurkanis Bruice (8th edition, 2016)

**Required Ancillaries:** *Study Guide and Solutions Manual for Paula Yurkanis Bruice Organic Chemistry*, 8th edition. *Turning Technologies QT* classroom response system (phone app only). **Do not purchase a clicker. Go to eLC to register your phone app. You must login to eLC and have a current Turning Point license to receive credit.**

**Recommended:** Molecular Model Set (The Molymod by Indigo Instruments, 3rd floor stockroom of the chemistry building). Perkin Elmer ChemDraw software is available for download.

**Attendance:** CHEM 2211 is a rigorous and fast-paced course. Absences will seriously affect your grade. Attendance will be taken and you are required to be in attendance at all lectures. If you choose on occasion to attend lectures given by another instructor, keep in mind that the pace will vary due to differing presentation styles. Material for which students are responsible for each exam is described on the approximate course schedule (last page of syllabus) and will be updated if necessary on eLC by Tuesday morning prior to the Wednesday evening exam.

**Assigned Problems:** To be successful in CHEM 2211 you must routinely work all of the assigned problems. You will be more successful if you work a few problems daily rather than all of the problems immediately prior to the exam. Use the solutions manual only after you have thoughtfully and carefully considered related lecture and textbook presentations of the material.

**Hour Exams:** Four exams, each worth 100 points, will be administered Wednesday nights from 7:00 p.m. to 8:30 p.m. on the following dates. Room assignments will be posted on ELC prior to the first exam.

Wednesday	January 30, 2019	7:00 p.m. to 8:30 p.m.
Wednesday	February 27, 2019	7:00 p.m. to 8:30 p.m.
Wednesday	April 3, 2019	7:00 p.m. to 8:30 p.m.
Wednesday	April 24, 2019	7:00 p.m. to 8:30 p.m.

Your lowest exam grade of the semester will be dropped. **There will be no makeup exams.** If you **do not arrive on time for an exam or miss an exam for any reason, that will be the exam that you drop.** Do not bring computers or other valuable items to the exam site. You will not be allowed to take your book bag to your exam seat. In addition, Smart Phones, Smart Watches and all other portable Smart Devices are NOT permitted in the exam room.

**Exam Requirements:** Students are required to bring their UGA ID with them to the exam site. Students who do not have their ID with them the night of an exam will automatically have 2% deducted from their exam total. Students must also make sure that they take their exam in the appropriately assigned classroom. Failure to do so will also result in a 2% deduction from their exam total. **Students must arrive on time to each exam (7:00 pm). If you arrive late to an exam, it will automatically become your drop test.**

**Final Exam:** A comprehensive final exam worth 130 points is scheduled for Thursday, May 2, 2019 from 7:00 p.m. – 10:00 p.m. The final exam is mandatory. **IMPORTANT - You must score 50% or higher on the final exam to earn a passing grade (A, B, C, D) in CHEM 2211.**

**IMPORTANT** - Any student not present at the assigned exam site when the final exam begins will not be admitted to the exam room and will be assigned a zero for the final exam. In the case of extraordinary circumstances, the course instructor may allow the student to take the final exam the following morning at 8:00 am. In this case, the student will be automatically assessed a 25-point deduction to the final exam score.

**Class Participation:** Class participation will be based upon your in-class responses using the clicker or the phone app. In-class clicker questions will be asked at random during the semester and will vary in frequency based on the instructor. At the end of the semester, your participation and the percentage of the clicker questions that you answered correctly will be converted into a corresponding number of points out of a possible 20 and will be factored into the 450 total points for the semester.

**Final Grade Determination:** If you score below 50% on the final exam, you will receive an ‘F’ for the course. If you score 50% or higher on the final exam, your final grade will be based on the **total points** earned out of **450 total possible points**, summing the **best three hour-exam scores (300 total possible points)**, the **final exam score (130 total possible points)**, and **up to 20 possible points for classroom responses using your clickers**. Final grade assignments are determined using the following scheme:

<b><u>Range</u></b>	<b><u>Points (out of 450)</u></b>	<b><u>Approximate %</u></b>
<b>A</b>	394-450 total points	87.5% - 100%
<b>A-</b>	382-393 total points	85.0% - 87.4%
<b>B+</b>	371-381 total points	82.5% - 84.9%
<b>B</b>	326-370 total points	72.5% - 82.4%
<b>B-</b>	315-325 total points	70.0% - 72.4%
<b>C+</b>	304-314 total points	67.5% - 69.9%
<b>C</b>	270-303 total points	60.0% - 67.4%
<b>D</b>	225-269 total points	50.0% - 59.9%
<b>F</b>	0-224 total points	< 50.0%

**Exam Corrections and Regrades:** We endeavor to grade exams consistently and accurately. However, if your exam has a totaling error or if a problem is mistakenly marked as incorrect but your answer is in complete agreement with the posted exam key, you may resubmit your exam on [outbox.chem.uga.edu](mailto:outbox.chem.uga.edu) indicating the error. We will make the necessary grading and totaling correction and your corrected total will appear on eLC when the subsequent exam scores are uploaded. BE CAREFUL! If we find that there is no error in grading or totaling, **5 points** will be deducted from your exam total. If you submit your exam requesting that a question be graded a second time but your exam is graded correctly and consistently, **5 points** will be deducted from your exam total for each question you request that we re-grade. “Grading correction” requests are accepted until Friday at 5pm the week graded exams are returned. **Instructors will not respond to credit questions pertaining to the exam until after the resubmission deadline has expired.**

**Withdrawal Policy:** The mid-point of the semester is Friday, March 1, 2019. The last day to withdraw from CHEM 2211 and 2211L is Thursday, March 21, 2019. A grade of ‘W’ is assigned to all withdrawals made prior to the withdrawal deadline, irrespective of performance in the course. Withdrawal is accomplished via the **Athena** system. Go to the withdrawal section of **Athena** and follow the instructions. CHEM 2211 and CHEM 2211L are corequisite courses. You may not remain enrolled in CHEM 2211L if you withdraw from CHEM 2211. **There are no exceptions to this policy.** After the mid-semester withdrawal deadline (Thursday, March 21, 2019), no student may withdraw from CHEM 2211/2211L except in the case of an approved hardship withdrawal that is authorized and accomplished by the Office of Student Services <http://reg.uga.edu/policies/withdrawals>.

**Lab Fee Policy:** Chemistry lab fees are collected by the Bursar’s Office with your tuition and fees. Students who do not pay their tuition and fees are automatically dropped from the course.

**Incomplete Policy:** An incomplete grade, “I”, may be assigned to students that are passing CHEM 2211 but are unable to complete **all** of their university coursework during the current semester due to unforeseen personal and/or medical circumstances. An incomplete grade is not assigned to students who are able to complete their university coursework but choose not to complete chemistry due to poor performance. In order to receive an incomplete in the class you must meet with your lecture professor and sign a contract which stipulates the terms and conditions of all university sanctioned incompletes.

**Grading and Partial Credit:** The Franklin College Bylaws state, “The standards by which grades are assigned, the number and relative weight of assignments on which grades are based, and decisions to allow students to makeup or retake exams or assignments missed for, or otherwise compromised by the student’s personal circumstances are solely within the discretion of the instructor.” Grading and partial credit decisions made by instructors are final.

**Email Etiquette:** The course instructors receive a large number of student emails per day (50+) and respond as quickly and completely as possible. Do not send email to eLC accounts. Instructors may be reached via the primary email addresses listed above. Instructors will not respond to questions that are answered in the course syllabus or postings on eLC. You must allow at least 24hrs for a response due to the volume of emails that instructors receive on a daily basis. Do not expect an instant answer. Your emails must be both courteous and coherent. Instructors will not reply to emails that are discourteous or indecipherable (slang, misspellings, etc...). Experience has demonstrated that it is not effective to answer homework or concept questions via email. In order to receive help concerning class work or homework you must visit your individual professor during their regularly scheduled office hours.

**Login to ELC:** To *Login to ELC (Desire2Learn)*, you will need a UGA MyID. If you have a UGAmail account, your UGAmail login and password will be your UGA MyID login and password. If you do not have a UGA MyID, go to <http://www.uga.edu/myid> and request one online. If you have an account and have forgotten your password, you can also reset your password by going to this site. The *eLearning Commons* Discussion Board is for scholarly communication only. It is not a complaint box. Course and grading concerns should be individually addressed during office hours with the lecture professor. **Inappropriate use of eLearning Commons will result in revocation of ELC privileges for CHEM 2211.**

**Academic Honesty:** As a University of Georgia student, you have agreed to abide by the University’s academic honesty policy, “A Culture of Honesty,” and the Student Honor Code. All academic work must meet the standards described in “A Culture of Honesty” found at: [www.uga.edu/honesty](http://www.uga.edu/honesty). Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

**Course Syllabus:** The course syllabus is a general plan for the course. Deviations announced to the class or placed on eLC by the instructor may be necessary.

## **APPROXIMATE COURSE SCHEDULE**

### **Reading Assignment**

Chapter 1 – Electronic Structure & Bonding (Brief Introduction/ Review)  
Chapter 2 - Acids & Bases (Brief Introduction/Review)  
Chapter 3 - Introduction to Organic Compounds

### **Problem Assignment**

1-49, 51-53, 57-74, 78  
1-52, 53-61, 65, 67-74  
Acids/Bases Tutorial  
1-54, 55, 57-62, 64, 67-74,  
76-87, 89, 90

### **EXAM 1                                      Wednesday, January 30, 2019**

**7:00 - 8:30 PM Rooms TBA**

Chapter 13 - Introduction to Mass Spec, IR, and UV-Vis  
Chapter 4 - Isomers (Stereochemistry)  
Chapter 14 - Introduction to  $^1\text{H}$ NMR and  $^{13}\text{C}$ NMR Spectroscopy

1-33, 41-43, 45-52, 54- 65, 67-  
69, 71, 74  
1-64, 65-97, 99-105  
1-44, 47-71, 74-79

### **EXAM 2                                      Wednesday, February 27, 2019**

**7:00 - 8:30 PM Rooms TBA**

Chapter 5 - Alkenes: Structure & Nomenclature; Reactivity & Kinetics  
Chapter 6 - Reactions of Alkenes & Stereochemistry of Addition  
Chapter 7 - Reactions of Alkynes & Introduction to Synthesis

1-38, 39-62, 64, 65 Curved  
Arrows Tutorial  
1-54, 55-71, 73-90, 94-97,  
101-103  
1-28, 29-39, 41-53, 55-57,  
59-60

### **EXAM 3                                      Wednesday, April 3, 2019**

**7:00 - 8:30 PM Rooms TBA**

Chapter 8 - Delocalization of Electrons & Aromaticity  
Chapter 9 - Substitution & Elimination Reactions  
Chapter 12 - Radical Reactions

1-60, 61-76, 79-83, 85- 95, 97-103,  
109 Resonance Tutorial  
1-66, 67-121, 123-131  
1-25, 26-27, 29-31, 33-34, 36-  
59, Curved Arrows Tutorial

### **EXAM 4                                      Wednesday, April 24, 2019**

**7:00 - 8:30 PM Rooms TBA**

### **FINAL EXAM                              Thursday, May 2, 2019**

**7:00 - 10:00 PM Rooms TBA**