General Course Description: Our goal is not to transmit facts to you. Facts will inevitably be forgotten and have an uncomfortable way of changing with time. Instead we will focus on learning how to “think organic chemistry,” on how to become a good problem solver.

IMPORTANT: We are supposed to be in-person all semester. n person all semester.

You are expected to view and digest the Videos before class. They are all available now on Brightspace. There is a schedule posted that ties the Videos to dates, chapters, and to the “extra” problems posted on Brightspace. During class we will work some of the “extra problems.” I will hold weekly office hours by Zoom, answering questions and perhaps working a problem or two that we don’t get to. Of course, you can ask questions at any time during the class.

There will be a remote “office hour” each week.

The first semester of this course covered structure, bonding, spectroscopy, and the fundamental building block reactions of organic chemistry: substitution, elimination, and addition reactions. In this semester will cover approximately 11 chapters, 12-20, 23, 24. There is a schedule posted, but keep in mind that the details are certain to change as we go along.

Texts: The texts will be “Organic Chemistry, Fifth Edition,” Maitland Jones, Jr., and Steven A. Fleming, W.W. Norton, New York, and the Study Guide, also published by Norton, by Jones, H.L. Gingrich and Fleming. The Study Guide has elaborate answers to all the problems in the book and is utterly essential. The text and lectures/problem sessions are separate parts of the course. There will be material covered at length in the book that we do not touch on in lecture, and
vice versa. The Brightspace site will have general chapter and page listings, but these are meant to be neither inclusive nor exclusive. You are expected to forage widely in your readings, using the index as well as other texts. We can recommend Marc Loudon’s fine book, “Organic Chemistry, Fourth Edition,” Oxford as a book that can be profitably consulted for another view on things.

**Brightspace Site:** Here you will find suggested problems for each chapter, the “extra” problems, old and current exams and answers, schedules, assorted handouts and announcements, and, sometimes, Opportunities for additional Hour Test points. Check it often.

**Problem Sets:** The Brightspace site has suggested problems for every chapter, as well as over 100 “extra problems” which are the problems the Problem-Solving” version of this course will be doing. Unfortunately, we do not have the manpower to grade these, so they are not required. However, you will find that doing problems is vital in preparing for exams. You are urged in the strongest terms to do those problems and to do them without the aide of the Study Guide. The effectiveness of working problems drops precipitously if you do not do them first without the Study Guide. There will probably be too many problems in the book for you to do them all, especially as the semester proceeds and demands on your time increase. One obvious solution is to do only some of the problems. That technique seems easy, but many people are intimidated by this simple idea and just abandon the problems until panic time. There is nothing wrong with doing every other problem! The best way to do the problems is to do them in a group, with each member of the group having the task of doing one or two problems and then explaining it to the group. If you adopt this method, you will find that the “explaining” part is an extraordinarily effective way to learn.

The problem sets, especially the later ones, do not contain “drill” problems. Such exercises are common in the book, however. It is very important that you be in control of the basic parts of the course before you attempt the “think” problems on the problem sets of in the exams.

**Exams:**

Dates are provided by the Deans. Please note that we do not pick these dates. They are inflicted on us (and you). The exam schedule is usually far from ideal and this year is especially bad. In fact, it is so bad that I cannot use the first assigned date (Feb. 11) because we will have only four usable meetings before that date. I do not think it fair for an exam to cover the days during the week before the exam date. In turn, the lack of three in-term exams means that the scheme must change (see below for details).

Exam 1  Friday, February 11, 2:00-4:00, place TBA
Exam 2  Friday, March 11, 2:00-3:45 place TBA
On the exams, resist the temptation to over–analyze. Thinking “simple” is usually the right thing to do. As Ted Williams once said, “If you don’t think too good, don’t think too much.”

Please note that all exams are cumulative. Recent material may be emphasized, but you are responsible for all the material covered so far.

**Quizzes:** There will be roughly one quiz a week at the end of the Tuesday class. We will drop the two lowest scores.

**Grades, Grading Schemes, Psychopathology, and Competition:** At almost every school, the course in organic chemistry has the reputation of being very hard and, often, destructively competitive. Moreover, it is widely held that success in “orgo” is essential to gaining entrance to The Medical School Of Your Choice. We can do nothing about the last notion, as it is utterly external to our efforts here. **Most Important:** In this course, you are not in competition with your neighbor. What he or she gets has NO - repeat NO - bearing on your grade. There is NO curve, which simply means two things: 1. There is no pre-set number or percentage of A’s, B’s and so on. There can be a year in which everyone gets an A. 2. Exams will not be scaled to some pre-set number. We aim for a median of about 65 on all exams. Historically, 65 has been roughly the B – B minus divide.

**IMPORTANT -PLEASE READ**

There are two grading schemes. You get the better score.

1. Because the mandated schedule means that we cannot have three in-term exams, I will drop the lower of the two in-term exams and then average the remaining in-term exam with the Final to determine the overall exam score. That score will count for 90% of your lecture grade. The quiz average will count for the remaining 10%. The overall course grade then counts for 75% and the Laboratory grade for the remaining 25.

2. For those, if any, who do well on the in-term exams but have a bad day on the final, we will count each in-term exam and the final equally (30:30:30), thus devaluing the final score from 50% to 30%. The quiz grade makes up the remaining 10%, and the overall class grade is 75% with the Lab being 25%. 
BUT, there is more: PLEASE READ THIS

As you probably know, both Professor Arora and I were very disappointed at the poor attendance in Chemistry 225. Of course, some of the worst offenders are gone, no surprise. But some remain. Some people can do well working on their own. So what’s the big deal? why should we care? All those absences, perhaps especially by the folks who do well regardless, hurt the rest of the class. All those absences last fall meant that groups rarely achieved the coherence necessary to make them the problem-solving engines they can be and have been in the past.

Accordingly, for the first time ever, I am going to make attendance part of the grade. Missing more than 25% of the class meetings will cost you one grade level (B to B minus, for example). On the other hand, a 90+% attendance rate (that means 26/28 classes if we do not go remote) will gain you one grade level (unless you already have an A, which is quite likely if you come to all the sessions.)

HOWEVER, you must pass both components of the course. An F or D in the lab will not be offset by a higher score in the course, and vice versa.

I am going to supply some rough historical grade cutoffs. If this information generates too much wear and tear through complaining, it will not be repeated. Please read the following information carefully. WATCH OUT! These numbers refer to the course part of the grade – this year, the lab will be factored into the overall grade.

ROUGH historical grade cutoffs: Nota bene: There is a price to this information. Cutoff lines are drawn where there are breaks, not at arbitrary scores. Those breaks vary a bit from year to year. DO NOT - repeat: DO NOT! - send me an email that says something like, “You said the cutoff for an A was about 81 and I got a 81.0001 and therefore I demand a grade change.”

Lowest A about 81-82
Lowest A minus high seventies
Lowest B plus 72-73
Lowest B about 65
Lowest B minus about 61
Lowest C about 46-47
Lowest D about 40

Some Things Not To Do (please):
1. Do not take an exam, hand it in, and then plead for a makeup. If you are sick or have an academic conflict we will do our best to accommodate if you let us know, but if you decide to take the exam, it counts, period.
2. Do not, after the course is over, petition us to change the whole grading system.
3. Do not, after the course is over, petition us to create a special grading system just for you.

We get both requests 2 and 3 every year.

4. Handing in a regrade request is just fine, but do not be combative or nasty. Just fill out the form as clearly as you can and hand it to MJ or TJK. No one is out to get you. Graders do make a few mistakes - that's part of the human condition - but that's all it is, a simple error. Be especially wary of saying "My answer is exactly what the answer key says." It is almost never true, and when it isn't true, that statement antagonizes the re-grader (me). Keep in mind that when you ask for a regrade we look at the whole exam. Remember: about 75% of grading errors are made in your favor. Please do not make regrade requests before you have got your exam back or before the answers have been posted.