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# CHMY 221.01: Organic Chemistry I

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# SOPHOMORE ORGANIC CHEMISTRY

## CHMY 221

### Instructor:

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Office hours: WF 12:10 – 1:00 PM, F 2:00-3:00 PM

### Course objective:

The sophomore organic courses are a traditional one year sequence in organic chemistry. Our goal is to provide you with the tools and knowledge to understand organic chemistry so that you may succeed in future studies of organic chemistry and fields (medicine, pharmacy, biochemistry, microbiology) that rely upon organic chemistry.

### Text:

The following text is recommended for the year: "Organic Chemistry", Jones and Fleming, 5<sup>th</sup> Ed. Other editions of the text are perfectly fine. Other sophomore organic textbooks are also useful. Sharing textbooks is also a good idea. Choose an option that fits your budget, whether that's Amazon, EBay, etc. Be aware that we do not 'teach from the book.' The text is an additional resource for material we teach in class. Purchase of a study guide that goes along with a particular text is recommended.

The American Chemical Society publishes a study guide ([http://examsinstitute.3dcartstores.com/Organic-Chemistry-Study-Guide\\_p\\_9.html](http://examsinstitute.3dcartstores.com/Organic-Chemistry-Study-Guide_p_9.html), \$21) for the whole two semester sequence that will be very useful for the final examinations in both CHMY221 and CHMY223. Indeed, the PCAT/MCAT exams use the same multiple choice format so the book serves as a great study guide for those exams too.

### Molecular model kit:

Model kits are available from the bookstore, former students, online or you can recycle the kits from General Chemistry. We recommend getting a kit and building many of the molecules we talk about. In particular, stereochemistry is going to make a lot more sense when you have access to the models. You will need to use the model kits in quizzes and examinations.

### Online resources:

We will be making extensive use of Moodle (<http://umonline.umn.edu>) to post lecture notes, additional material, past quizzes and exams and grades for the course. There is a significant correlation between poor performance and lack of use of Moodle resources.

### Lecture notes:

The style of the lectures and the pace of the lectures will simply NOT allow you to take full notes as you go along. You are expected to have the online lecture notes available to you in the lecture. You will then be able to focus on the lecture and annotate the basic notes and work on questions in class. The notes for this year will be available on Moodle prior to the lectures and will be available both as a pdf and as Microsoft OneNote files. The latter will allow tablet users to annotate the notes directly without having to print them out.

### Quizzes & Exams:

Quizzes will be given on Friday afternoons after lecture; they will not be graded but we will go over the answers to the quiz immediately after the quiz and you can assess your own performance. Use these as targeted review sessions. There

will be four, hour long midterm examinations in each semester and your scores from three of these will count towards your grade. These examinations will start at 4:00 PM on a Friday. The examinations will generally emphasize the material given since the previous exam but you must recognize that some material given much earlier in the course will be required to successfully answer questions on quizzes and exams.

A comprehensive two-hour final exam will be given using the officially scheduled day for CHMY 221. The exam will be the standard American Chemical Society (ACS) first semester organic chemistry exam (CHMY221). This examination is multiple choice - 64 questions in 110 minutes. We strongly recommend getting the appropriate study guide. This examination is difficult with an average student only getting about half the questions correct. We do have an appropriate curve for the examination but be aware that a poor score on this exam will impact your grade significantly.

Graded midterm exams will be returned in class. An answer key will be posted online. If the student has a question about how an answer was graded, and will request a change in grading, the exam must be left with the instructor before the student leaves the classroom on the day that the exam is returned. The graded final exam, being a multiple choice examination conducted under ACS guidelines, will not be returned.

We will be using Moodle for online quizzes. The Moodle quizzes will account for 20 % of your overall grade. You can complete them at any time during the semester. They must all be completed prior to the date of your final examination. Warning: there will be a lot of them. Do not ignore these as you will run out of time to complete them. We expect that you'll be helping each other and using online resources for these quizzes. The best way to do them, however, is to attempt them alone without external resources just as you would take an examination. The more you deviate from this the less the quizzes will be worth to you in terms of improving your chemistry knowledge and your ability to do well on the final.

**Lowest Exam Grades/Missed examinations:** A missed exam counts as a zero. The lowest midterm examination grade will not be included in the final point total. There will be no make-up exams for the first examination missed except in the case of documented, significant personal hardship. Make-ups are permitted for the second examination missed solely at the discretion of the instructor, and only in the case of documented, significant personal hardship. No make-up will be given before the regularly scheduled examination. A make-up examination must be requested no later than the second lecture after the missed examination. The drop-lowest/make-up policy is designed for **emergencies and other infrequent, unplanned absences**. It is not for schedule and work conflicts. Make-up examinations are not guaranteed to be as easy/difficult, or even as fair, as the standard tests as they do not get the same scrutiny for proof reading. As the ACS examination used for the final is a nationally standardized examination there will be no make-ups, this examination will only be given during the assigned examination time.

#### Point Distribution and Grades:

In class quizzes:	Ten in total	Do not count towards total		
Online (Moodle) quizzes:	Many	All are counted*	200 points total	200 points (20%)
Examinations:	Four in total	Best three are counted	200 points each	600 points (60%)
Final examination:	One	Score is included	<u>200 points</u>	<u>200 points (20%)</u>
			Total	1000 points

\* All online quizzes count, however, each quiz can be taken an unlimited number of times and only the best score will be used in the grade calculation.

There will be no extra credit questions and no extra credit assignments. ***There will be no chemistry questions answered during examinations or quizzes either by the instructor or the TA's.***

The course will be graded using the standard grades from A, A-, B+... D-, F. Grades will correspond to scores as follows:

	697	(93 %)		750	(100 %)	A
	675	(90 %)		697	(93 %)	A-
	652	(87 %)		675	(90 %)	B+
	623	(83 %)		652	(87 %)	B
Score greater than or equal to	600	(80 %)	but less than	623	(83 %)	B-
	578	(77 %)		600	(80 %)	C+
	547	(73 %)		578	(77 %)	C
	525	(70 %)		547	(73 %)	C-
	502	(67 %)		525	(70 %)	D+
	472	(63 %)		502	(67 %)	D
	412	(55 %)		472	(63 %)	D-
Score less than	440	(55 %)				F

We will only review a student's final grade in the case of likely mathematical errors in the grade calculation. The grade you receive in this class will be the grade that you earn solely by demonstrating competence in course work and examinations. If you have trouble taking examinations, or have difficulty with multiple choice examinations, please immediately seek out resources on campus that can aid you.

#### **Prerequisite grade for CHMY 223:**

As CHMY221 is a prerequisite for CHMY223 you must pass CHMY221 with a C- or better to enroll in CHMY223. There is no point in trying to take CHMY223 if the preparatory material in CHMY221 has not been mastered. Not only will the material in CHMY223 not make much sense, the examination at the end of CHMY223 covers material from the entire year. Many years of grading statistics show us that nobody does well in CHMY223 who did not also do well in CHMY221.

#### **Class Attendance:**

Attendance for lecture is not mandatory; we don't take roll and there are no points to be had for just turning up. Attendance for quizzes and examinations is not mandatory either but if you don't take a particular examination you will get zero points for it (subject to the make-up/drop provisions detailed earlier).

For quizzes and examinations you are responsible for all information given in class whether you were in attendance or not; many examples of practical applications not found in the text will be given. If you must be absent, check with a fellow student first to see what was missed. Completed lecture notes will be posted online as soon as practical after the lecture.

**Homework:** Homework for the course will consist of previous year's quizzes and examinations. Answer keys will be available online. This work is not to be turned in and will not be graded; however it is very beneficial that they be completed. **WARNING: The format of the quizzes and exams for this year will be significantly different to previous years.**

**Cheating:** All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor (see below) and/or a disciplinary sanction by the University.

All students need to be familiar with the Student Conduct Code. The code is available for review online at:

[http://life.umt.edu/vpsa/student\\_conduct.php](http://life.umt.edu/vpsa/student_conduct.php)

All exams and quizzes in this course are closed book however the use of model kits is encouraged. Notes, calculators and the use of any electronic devices are not allowed. Looking at another student's exam or quiz is cheating. Altering

exams for re-grading is cheating. The instructor's academic penalty for cheating will be an F grade for the whole course. The University may also level additional punishments.

**Incomplete grades:** Review the current University "Incomplete" grade policy. It includes the following points:(a) factors beyond the student's control (and acceptable to the instructor) must make it impossible to complete the course on time, (b) the student should have been in attendance and passing through three weeks before the end of the semester, and (c) the instructor should believe that there is a reasonable probability the student can complete the course without repeating the entire course. Early travel before the final exam date is not sufficient reason for an "Incomplete."

**Withdrawal/Other Change in Grading Option:** After the 30th day of instruction, a grade of WF or WP will be assigned.

**Turn Off Cell Phones.** The use of cell phones in class, or during examinations, in any manner is not allowed.

**Quiz and Exam Schedule / other notable events.** The quizzes and midterm exams will be given on Fridays at 4:00 pm

#### **CHMY221:**

Monday, August 25	First lecture
Friday, August 29	Quiz #1
Monday, September 1	No class - Labor Day
Friday, September 5	Quiz #2
Friday, September 12	Quiz #3
Friday, September 19	Examination #1
Friday, September 26	Quiz #4
Friday, October 3	Quiz #5
Friday, October 10	Examination #2
Friday, October 17	Quiz #6
Friday, October 24	Quiz #7
Friday, October 31	Examination #3
Friday, November 7	Quiz #8
Friday, November 14	Quiz #9
Friday, November 21	Examination #4
November 26 - 28	No class - Thanksgiving vacation
Friday, December 5	Quiz #10
Monday, December 8	Final examination: 8:00-9:50 AM (check this nearer the date)

#### **Additional policies:**

Students with disabilities will receive reasonable modifications in CHMY221. Be prepared to provide verification of the disability and its impact from Disability Services for Students (DSS; <http://www.umt.edu/disability>).

#### **Changes to syllabus:**

We reserve the right to change any or all of the syllabus at any time. It is the responsibility of the student to learn of these changes should they miss class.