

**Organic Chemistry II**  
**CHEM 2452**  
**Spring 2015**

<b>Instructor</b>	Dr. Teresa Cowger
<b>Office:</b>	SGM 251
<b>Contact info:</b>	teresa.cowger@du.edu
<b>Class Lectures:</b>	MWF 8:00 – 8:50; Olin Hall 105
<b>Discussion:</b>	Tuesday 8:00 – 8:50; Olin Hall 105
<b>Final Exam:</b>	Monday, June 1, 8:00-9:50; Olin Hall 105
<b>Office Hours:</b>	Mondays, 9:00-11:00 am (Mudd 251)

**REQUIRED COURSE ITEMS**

**Textbook:** Marc Loudon, *Organic Chemistry*, 5<sup>th</sup> ed. (required) and the Sapling online homework package (required). A molecular modeling kit and the solutions manual for the Loudon book are recommended.

**Pre/Corequisites:** To enroll in this course, you must have received a passing grade in General Chemistry and its lab as well as Organic Chemistry I and its lab. Students without this prerequisite wishing to enroll must contact Dr. Cowger. CHEM 2652 is a 1-credit laboratory course that is graded independently from CHEM 2452. Students missing the first lab session may be dropped from both the lecture and laboratory courses.

**CLASS MEETINGS.** I will highlight important concepts from your readings during lectures. I will stop periodically and ask you to answer questions. In general, each week will start with a lecture on Monday that introduces the major concepts; these discussions will continue on Wednesday and Friday. The pace will be approximately one chapter per week. The Tuesday recitation session is optional. I will provide a quiz/assignment which will include problems relevant to the lecture material. These are ungraded exercises meant for you to check your progress in the class.

**EXAMS.** There will be three (3) one-hour exams given during the quarter and a two-hour, cumulative final exam. Dates for these exams are posted on the tentative lecture schedule. **NO MAKE-UP EXAMS WILL BE OFFERED.** There is one exception to this policy. If you will be out of town for a University-sanctioned function (e.g., athletic team or music group), you are responsible for making arrangements with Dr. Cowger at least one week in advance to complete the exam prior to the scheduled date. If you miss an exam, then your final exam will be counted twice to replace the missed exam.

If you take all three, hour exams AND your grade on your final exam is higher than one of your hour exams, **then your final exam will be counted twice to replace your lowest hour exam grade.**

**GRADES.** At the end of the quarter, your final grade will be determined according to your performance on the exams and online homework. Your final grade will be determined on a maximum of 500 points with the following components:

<u>Component</u>	<u>Points</u>
Hour Exams (100 points each)	300
Final Exam	200
Online Homework	200
<b>Total Points</b>	<b>700</b>

Your final grade will be determined by the following scale:

	A		B			C			D		
Letter	A	A-	B+	B	B-	C+	C	C-	D+	D	D-
Percentage minimum	94	90	87	84	80	74	70	65	61	57	55

The values listed in the table are the guaranteed minimum values. So, if your average is 90, you will receive an A- for the course. Complaints on grading and/or recording errors should be made within two weeks of each exam or assignment, so it is advisable to check on the course website (canvas.du.edu) frequently for grading accuracy.

**CELLULAR PHONE AND LAPTOP POLICY.** I respect the need for each individual to stay in contact with family and friends. The use of cellular phones and pagers, however, is disrupting to the learning environment. Thus, I request that the ringers of all cellular phones (or any devices) be muted during class. If an emergency arises and you need to make a call on your phone, I request that you quietly leave the room and conduct your conversation out in the hallway. Laptops can also be quite disrupting in class; therefore, ONLY laptops used for taking notes will be allowed. If you use your laptop, I might request that a copy of your notes be emailed to me at the end of class.

Pro-tip: Organic chemistry requires the understanding of STRUCTURE and MECHANISMS. Hand-drawing is the optimal way learn these ideas and record notes.

**LECTURE AND TESTING ACCOMODATIONS.** I will make every effort to accommodate students diagnosed with a learning disability. I will do this in complete confidence. I do, however, request that any student requiring these accommodations inform me the first week of class either in person or via email. For further information, please see the University Disability Services' website at <http://www.du.edu/disability/dsp/index.html>.

**RELIGIOUS ACCOMODATIONS.** It is University policy to grant students excused absences from class or other organized activities for the observance of religious holy days, unless the accommodation would create an undue hardship. I will do my best to accommodate your requests if you make arrangement with me *in advance* of your absence. Please examine the course syllabus, including the tentative schedule, for any potential conflicts with holy days and notify me prior to the end of the second week of classes of conflicts that may require your absence from class and/or prevent you from completing an assignment. I have included the link to the Religious

Accommodations Policy for your reference. More information can be found at [http://www.du.edu/studentlife/religiouslife/DU\\_religious\\_accommodations\\_policy.html](http://www.du.edu/studentlife/religiouslife/DU_religious_accommodations_policy.html).

**ACADEMIC DISHONESTY.** While I advocate collaborative learning and teamwork, I also firmly believe that each individual should maintain the highest ethical standards in all of life's endeavors. As such, I support and will strictly enforce the Honor Code of the University of Denver. For your reference, I have included the link to the Honor Code Student Conduct Policy and Procedures at [http://www.du.edu/studentlife/studentconduct/honor\\_code\\_2013-2014.pdf](http://www.du.edu/studentlife/studentconduct/honor_code_2013-2014.pdf). If a student is caught cheating, the student will receive a grade of zero for that assignment/quiz/exam and a report will be filed with the Student Conduct Office. A repeat offence will result in failure of the course.

**COURSE HELP.** You have several avenues for help in this class. First of which, we have a help desk (The Science Learning Center) on the first floor of Anderson Academic Commons staffed with TA's who are available to help you with both lecture and lab material. This service is free and is a great way to get assistance from both the TAs and from your peers. Please use this resource as often as necessary. Second, you are welcome to drop in to my office hours or by appointment if my set hours are not compatible with your schedule. Third, STUDY GROUPS!! Help students around you and ask for help from them. You collaborative learning is an integral part of college life as well as a valuable asset in chemistry. We have observed that students will often meet at the Science Learning Center and meet classmates there to form study groups. This is highly encouraged. Last, the TA of your lab will always be a great resource for class help. Make sure to meet with him/her in lab or at their office hours.

**\*TENTATIVE LECTURE SCHEDULE 2015**

<b>Week/Chapter/Notes</b>	<b>READING</b>
<b>WEEK 1</b> <b>CHAPTER 10: ALCOHOL AND THIOL CHEMISTRY</b> Review S <sub>N</sub> 1/S <sub>N</sub> 2, E1/E2. Nomenclature, reactions, and redox.	10.1-10.6, 10.8, 10.9
<b>WEEK 2</b> <b>CHAPTER 11: ETHERS, EPOXIDES, GLYCOLS, SULFIDES</b> Nomenclature, synthesis, cleavage, anchimeric assistance	11.1-11.5, 11.7, 11.9
<b>WEEK 3</b> <b>CHAPTER 14: ALKYNES</b> Nomenclature, structure/bonding, reactions, acidity.	14.1-14.8
<b>April 10 1-Hour Exam.</b>	
<b>WEEK 4</b> <b>Chapter 12: Infrared and Mass Spectrometry</b> Functional group signals, cleavage patterns, rearrangements	12.1-12.6
<b>WEEK 5</b> <b>Chapter 13: Nuclear Magnetic Resonance</b> Shift, splitting, integration	13.1-13.7, 13.9, 13.10
<b>WEEK 6</b> <b>CHAPTER 15: DIENES, RESONANCE, AROMATICITY</b>	15.1-15.4, 15.6, 15.7
<b>May 1 1-Hour Exam.</b>	
<b>WEEK 7</b> <b>Chapter 16: Benzene Chemistry</b> Nomenclature, Electrophilic Aromatic Substitution	16.1-16.6
<b>WEEK 8</b> <b>CHAPTER 17: ALLYLIC AND BENZYLIC CHEMISTRY</b> Cation/Anion/Radical Reactions, S <sub>N</sub> 2/E2 and oxidation reactions	17.1-17.5
<b>WEEK 9</b> <b>Chapter 18: Aryl/Vinyl Halides, Phenols, and Transition Metal Catalysis</b>	18.1-18.10

**May 22 1-Hour Exam**

**WEEK 10**

May 25 is Memorial Day. No Class

This week will be a review and “overflow” week. If, for example, I do not completely finish a chapter’s material in one week and the schedule shifts into the next, this week will help finish the last material in the course.

**June 1            FINAL EXAM    (Cumulative)**

\* Tentative means that this is my best approximation of the schedule for the quarter. Actual lecture topics and materials may change.