OVERVIEW and INSTRUCTIONAL GOALS

Organic chemistry is the study of carbon-based molecules and these molecules are the building blocks of all living systems on Earth! This course will challenge you to think about the structure and behavior of molecules. Chem262 is the second half of a two-semester course in organic chemistry. We will examine the chemistry of aromatic compounds, carbonyls, carboxylic acid derivatives, amines, and biological molecules such as carbohydrates and proteins.

Over the course of this semester you will:

- Enhance critical thinking and problem solving skills
- Learn to make reasonable predictions of reactivity based on a compound’s structure
- Understand reaction mechanisms in terms of the flow of electron density
- Use synthetic transformations to plan multi-step synthesis of complex compounds
- Apply fundamental ideas of organic structure and reactivity to issues of interest to society

PREREQUISITE

Chem261 or 261H. C- or better required in prerequisite.

COURSE MATERIALS

Required Materials


Mastering Chemistry License – course ID: MOY262Fa17

Learning Catalytics License (go through Mastering account)

Optional Materials

Molecular Visions Organic Model Kit

INSTRUCTOR

Dr. Cheryl Moy (Kenan Labs C147E)

Chem 262-002 Class meeting: MWF Murray G202 @11:15 am – 12:05 pm

Office hours: Don't feel intimidated if you've never been to a professor's office hours. You can come alone or sign-up with a friend. You can come in to talk about the course, study skills, mental health issues, your background, your career, advice for future courses to take, etc! I am happy to talk!

- Check "sign-up" on the panel on the left in Sakai to reserve a slot. My hours for each week will generally be:
  - Wednesday 1:00 pm – 2:00 pm
  - Thursday 9:00 am – 11:15 am
- You may also email me (cmoy@unc.edu) to schedule an appointment outside of these hours. Email Policy: My email availability is limited; however, if you need to email me please include “Chem262” along with a one-word description in the subject line.

Mentors

Undergraduate mentors who have done well in chemistry courses at UNC will facilitate the problem-solving sessions during class. They have been assigned a section of the room to focus their time and have been asked to get to know you! Please feel comfortable asking them questions! Mentors will also lead outside of class recitation sessions in the Chemistry Resource Center M-F 5 pm – 7 pm. These recitations are opportunities to work problems and talk about course content.

Peer support via PIAZZA

Piazza is a great tool to help us become a community of scholars to help answer each other's questions about the course logistics and course content. Piazza is also a means to help you find study buddies. Research has shown that when you engage in the material with others you are able to better solidify the concepts. I am the Mentors will be checking in through Piazza occasionally, but it is expected that you will answer each other's questions. I will be taking notice of students who are engaging here.

COURSE WEBPAGE

sakai.unc.edu Check the course webpage frequently as lecture materials, practice problems, Guided Reading Questions, answer keys to exams, and in-class problems will be posted to this webpage. Announcements regarding student concerns will also be posted regularly to this site. It is your responsibility to check it regularly.
COURSE VIDEOS

http://vimeo.com/album/2990153  These videos offer an excellent introduction to the topic that we will discuss in class. You may choose to either read the textbook chapters assigned or watch the videos to prepare for lecture.

COURSE CALENDAR

Updated information to lecture slides and resources will be posted to a Google Calendar link. This calendar is not to be shared or posted publicly. In doing so, you will be violating the University Honor Code and university Copyright laws. In addition, the marketing of your class notes for profit is also a violation of the University Honor Code. All resources available for the course is for personal use only.

COURSE HOMEWORK

http://www.pearsonmylabandmastering.com/northamerica/masteringchemistry/

COURSE FORMAT AND EVALUATION

The total number of points possible for the course is **400 points**.

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<thead>
<tr>
<th>Percent</th>
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<tbody>
<tr>
<td>100.0 – 93.5</td>
<td>A</td>
<td>79.4 – 77.5</td>
<td>C+</td>
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<tr>
<td>93.4 – 89.5</td>
<td>A-</td>
<td>77.4 – 73.5</td>
<td>C</td>
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<tr>
<td>89.4 – 87.5</td>
<td>B+</td>
<td>73.4 – 69.5</td>
<td>C-</td>
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<tr>
<td>87.4 – 83.5</td>
<td>B</td>
<td>69.4 – 64.5</td>
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<td>83.4 – 79.5</td>
<td>B-</td>
<td>&lt; 64.4</td>
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* (or a score of 45% or less on the final exam)

The following is a breakdown of how points are distributed:

Exams – **200 points** (50% of your final grade)

There will be three in-class examinations, each worth 100 points.

*Exam #1: Friday, September 15, 2017*

*Exam #2: Monday, October 9, 2017*
Although you are expected to take each exam, I will drop your lowest exam score. In the event that an exam is missed, it will count as your dropped exam. Exam accommodations can only be granted with official documentation and are to be made two weeks in advance.

**Final Examination – 150 points** (37.5% of your final grade)

There will be a cumulative final examination worth 150 points.

*The final examination is scheduled for Tuesday, December 12, 2017 at noon.*

**Daily Work – 50 points** (12.5% of your final grade)

I understand that life gets busy and there will be days in which you may forget to do an assignment, you forget to bring your device to class, or you are caught off task (please see DIGITAL ETIQUETTE). Although there will be no makeups for Daily Work Points, to account for those one-off times, I have the following policy: at the end of the semester, to receive full-credit (50 points) for Daily Work, you need only to complete 75% of the min. daily work points made available in each category (there are 2 categories outlined below). Extra points from one category cannot be transferred to another category to complete the minimum requirement of 75% in each category. However, I challenge you to make it your goal to get as many points as possible as these regular assessments are implemented to help you succeed.

1. **Mastering Chemistry Assignments**
   a. **There are 2 components: Mastering Chemistry Pre-Lecture Assignments (MCP #)** – The day before each lecture an assignment will be posted in Mastering Chemistry related to the assigned pre-lecture reading. The deadline for completing each assignment is 6 AM before lecture. There will be no lecture prep assignment the day before exams. Lecture Prep Assignments are to be done individually. Under no circumstance can Pre-Lecture Assignments be made up.
   b. **Mastering Chemistry Assignments (MC #)** – There will be a Mastering Chemistry Assignment at the end of every chapter. Assignments are to be done individually. Late assignments will receive zero credit; there will be no exceptions to this policy.
   c. **Please do not discuss or post questions about MC assignments on Piazza until it is past the deadline.** This is to ensure the fairest environment for all working on the assignment. I recognize that there may be questions that are assigned that are incorrectly graded – these will be tended to at the end of the assignment and likely thrown out of the assignment.

2. **Daily In-class Problem Solving** – Each class period you will work through several problems chosen to apply course content. To solve these problems you will be asked to talk to your neighbors, use your notes, textbook, and other resources that may be useful for solving these problems. Your
understanding will be assessed via questions posted in Learning Catalytics. Some questions may require you to answer correctly to receive full credit for that question. Under no circumstance can Daily Participation Points made up.

DIGITAL ETIQUETTE

This course will require you to use your laptop/and or cell phone during class time. While I recognize that you are an excellent multi-tasker, research suggests that your peers are not. Please be respectful of your classmates and restrict your use of digital devices to course content. If we see that you or your peers are distracted, we will ask you to put your devices away and you forfeit your ability to earn participation points that day. There will be times when you have completed your work or answered a poll question, but your peers have not. We ask that you assist your peers when appropriate or use the time to review your notes while you wait. You will learn more if you concentrate on the course while you are here an your classmates will thank you for not impeding their ability to learn.

GUIDED READING QUESTIONS (GRQ)

GRQ are a resource for you to stay active in your reading. (Research shows this is far better than simply highlighting!) Many of the questions you will need to answer in the GRQs can be answered by using your textbook. By following along with the GRQs and then answering online homework questions (MCPs) and answering questions in class and after class you will multiple opportunities to practice. Practice is important for you to determine what you know what you do not know. If you can’t answer a question or you get a question incorrect, this is evidence that you will need to focus on this concept again. This expectation is that you use these GRQs and other course tools to gauge your own learning and make adjustments as necessary. You should always complete the guided reading assignments prior to coming to lecture. You may be asked to turn in GRQ assignments in on occasion and you may even receive points for completing them. You simply will not be able to fully engage in class without a basic understanding of the material that will be covered.

ACADEMIC HONESTY

Policy adopted by the faculty of the Department of Chemistry on September 9, 1977:

“Since all graded work (including homework to be collected, quizzes, papers, mid-term examinations, final examinations, research proposals, laboratory results and reports, etc.) may be used in the determination of academic progress, no collaboration on this work is permitted unless the instructor explicitly indicates that some specific degree of collaboration is allowed. This statement is not intended to discourage students from studying together or working together on assignments which are not to be collected.”
The UNC Honor Code (available at honor.unc.edu) is the cornerstone of academic integrity at UNC. I expect you to abide by the Honor Code at all times, whether in or out of class.

KEYS TO SUCCESS

Practice. Practice. Practice.

I cannot emphasis this enough: do as many problems as possible.

Come prepared to class, attempt all of the suggested textbook problems, come to mentor-led Q&As and work on the problems given during those sessions. Attempt the problems without the answer key or solution manual in front of you. Struggle with the problems. Organic chemistry is difficult, but that is because you are in the process of training yourself to reason in a way that you are not used to and it will be uncomfortable. Embrace that discomfort and you will formulate the connections and patterns that work for you.

Get help as soon as possible, if you need it.

Try your best to stay on top of the content. If you do not understand something, talk to a friend/classmate outside of class or come to Q & A sessions.

Stay healthy.

Eat well, set aside a bit of time to de-stress, and sleep. You will be able to better retain information, learn, and not fall behind if you are healthy and happy.

Here is a list of resources for your information:

- Peer Tutoring Program in Dey Hall. Juniors and senior students offer one-on-one tutoring. Tuesday and Wednesday evenings.
- The Learning Center. Free tutoring by appointment, signup at http://learningcenter.unc.edu/services/Math%and Science/tutoring-for-math-and-sciences
DISCLAIMER

Professor Moy reserves the right to make changes to the syllabus, including project due dates and test dates (excluding the officially scheduled final examination), when unforeseen circumstances occur. These changes will be announced as early as possible so that students can adjust their schedules.