Instructor: Ogar Ichire (Leo) Ph.D.

Office: F.W Olin 205A  E-mail: ogar.ichire@du.edu  Phone: 303.871.4515

Lecture: MWF 9:00 a.m. – 9:50 am (F.W. Olin 205)

Recitation: T 9:00 a.m. – 9:50 am (F.W. Olin 205)

Office Hours: Open Door


Support Text: Organic Chemistry 3rd Edition by David R. Klein (a copy will be placed at the chemistry help center in the library)

Recommended Model Kit: Molymod #62053 Organic Chemistry Molecular Model Set by Indigo Instruments or other similar kit (typically available on Amazon)

Course Goals:
Specific course goals have been developed in line with the mission and learning outcomes of the chemistry department and the University of Denver (see current university catalog).

Students at the end of this course will:
1) Understand and apply current chemical theory in the following areas:
   a. The use of the language and terminology of organic chemistry (nomenclature, functional groups, reaction names and types, and fundamental transformations).
   b. The use of fundamental concepts to understand and predict the structure, properties, reactivity, and simple mechanisms of organic compounds and reactions.
   c. The use of molecular models and/or modeling software to explain reactivity, stability, and function.
2) Have communicated understanding of organic principles
   a. In writing on exams and assignments.
3) Develop critical thinking skills by
a. Applying knowledge to new situations, chemicals, and reactions.
b. Posing questions and answering questions on multiple cognitive levels.

4) Develop awareness of modern issues in chemistry by
a. Understanding the impact of organic chemistry in daily life and the scientific society.
b. Examining ethical issues which relate to applied organic chemistry.

Getting the most out of this class:
- Review your general chemistry notes the first week of class and take the class reading seriously. Preferable, read the whole chapter before class.
- Conduct searches after each class to find applications of the chemistry covered in class.
- Solve as many problems as possible instead of memorizing. This means that consistent work is required and will pay off a lot more instead of cramming.

Lectures: The lectures will generally follow the textbook and added materials for better understanding. Most lectures will be presented on the board. **Attending every class – including recitations – and taking meaningful notes is incredibly important for this complex subject.** Staying up with the reading will help you to understand the lecture better and take more meaningful notes. Solving problems is integral to succeeding in organic chemistry, so during lectures and particularly during recitation, we will work through problems and I also encourage you to solve problems together as a group.

Problems You should work as many problems in text as possible. The exams will focus on problems involving reactions, mechanisms, and syntheses. The only way to prepare for these problems is to practice, practice, and practice. The text provides you with in-chapter and end-of-chapter problems – hopefully, you will use this to your advantage. Also, the course will include an online homework and additional in-class and worksheet problems to assist you build the skills necessary for the course. Please note that these problems only represent the **bare minimum** of questions you should attempt. Organic chemistry is synonymous to learning a new language and practice is key to learning the language.

Homework: Working on your homework is essential for developing the skills needed to succeed in organic chemistry. It starts with questions relating to basic knowledge and comprehension of concepts and then builds to composite organic chemistry problems that require critical thinking skills at the levels of application, analysis, and synthesis. The homework is computer-based and is through Sapling Learning.

Online Homework through Sapling: There will be weekly problem sets to be completed online through the Sapling system. **Homework will be due Friday nights at 11 pm.** These problems will be graded and normalized to 100 points over the course of the quarter. The lowest weekly homework score will be dropped. **Late submissions would**
receive no credit. To get started with Sapling, go to [www.saplinglearning.com/login](http://www.saplinglearning.com/login) to log in or create an account. The following link includes detailed instructions on how to register for your course: [https://community.macmillan.com/docs/DOC-5972-sapling-learning-registering-for-courses](https://community.macmillan.com/docs/DOC-5972-sapling-learning-registering-for-courses).

**Worksheets (WS):** Worksheets are designed to help you practice standardized questions. It is essential that you complete the worksheets to assess your understanding of class material and apply your knowledge to solve challenging problems. Worksheets are worth 100 points.

**Exams:** There will be two midterm exams, each worth 100 points, and a final exam also worth 100 points. If your final exam score is higher than any of your midterm then, the lowest midterm will be substituted with the final score. Note: your final score is your final score.

**Final Grade:** Your final grade will be determined out of the 500 available points through exams, homework, and worksheets (plus all earned bonus points).

*There will be no makeup exams. If you miss an exam for any reason, that exam will be dropped and the final will count for 200 points of the 500 points. The final exam is not optional.*

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<thead>
<tr>
<th>Grade</th>
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<tbody>
<tr>
<td>A</td>
<td>100 – 94 %</td>
<td>C-</td>
<td>&lt;74 – 70 %</td>
</tr>
<tr>
<td>A-</td>
<td>&lt;94 – 90 %</td>
<td>D+</td>
<td>&lt;70 – 67 %</td>
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<tr>
<td>B+</td>
<td>&lt;90 – 87 %</td>
<td>D</td>
<td>&lt;67 – 64 %</td>
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<tr>
<td>B</td>
<td>&lt;87 – 84 %</td>
<td>D-</td>
<td>&lt;64 – 61 %</td>
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<tr>
<td>B-</td>
<td>&lt;84 – 80 %</td>
<td>F</td>
<td>&lt;60 – 0 %</td>
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<td>C+</td>
<td>&lt;80 – 77 %</td>
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<tr>
<td>C</td>
<td>&lt;77 – 74 %</td>
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*Note: Final grades and percentage ranges are subject to change by the instructor*

**Cell Phone and Electronic Device Policy:**
While I understand that mobile devices have become integral to our lives, they might be disruptive to the learning environment. Therefore, I request that all electronic devices be turned off (not muted) during class (that is, please don’t text/Facebook during class). If an emergency arises, and you need to contact the outside world during our lecture or recitation time, I request that you quietly leave the room and conduct your conversation outside. Also, most of our lectures will require far too many structural drawings for effective notes to be taken on a laptop so please leave these devices in your bags during lecture.
Lecture and Testing Accommodations:
I will make every effort to accommodate students diagnosed with any learning disability and your accommodation will be confidential. I do, however, request that any student requiring these accommodations inform me the first week of class. For further information, please see the University Disability Services’ website at http://www.du.edu/disability/dsp/index.html.

Academic Integrity:
While I advocate collaborative learning and teamwork, I also firmly believe that each individual should maintain the highest ethical standards. As such, I support and will strictly enforce the Honor Code of the University of Denver. www.du.edu/honorcode.

Honor Code Statement.
All members of the University of Denver are expected to uphold the values of Integrity, Respect, and Responsibility. These values embody the standards of conduct for students, staff, faculty, and administrators as members of the University community. These values are defined as:

Integrity: acting in an honest and ethical manner;
Respect: honoring differences in people, ideas, and opinions;
Responsibility: accepting ownership for one’s own conduct.

Pioneer Pledge.
As a University of Denver Pioneer I pledge…
• to act with INTEGRITY and pursue academic excellence;
• to RESPECT differences in people, ideas, and opinions and;
• to accept my RESPONSIBILITY as a local and global citizen;
Because I take pride in the University of Denver I will uphold the Honor Code and encourage others to follow my example.

Topics to be covered: Tentative Course Schedule – Subject to Change

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<thead>
<tr>
<th>Date* 16</th>
<th>Topic</th>
<th>Reading</th>
<th>Due</th>
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<tbody>
<tr>
<td>Wk1</td>
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<tr>
<td>9/11</td>
<td>Chemical Bonding and Structure</td>
<td>Ch1 &amp; 8</td>
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<tr>
<td>9/13</td>
<td>Lewis dot structure, Octet Rule, Chemical bonding, formal charge, molecular geometry, polar covalent bond</td>
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<tr>
<td>9/15</td>
<td>Bond Theories Valence bond theory, Hybridization, molecular orbital theory, Resonance</td>
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<tr>
<td>9/18</td>
<td>Molecular Representation of Organic Molecules</td>
<td>Ch2 &amp; 3</td>
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<tr>
<td>9/20</td>
<td>Advanced Drawing of Organic Molecules, Lone pairs, Resonance, functional groups</td>
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### Canvas and Class Notes:
Most lectures information will be presented on the board, however, when PowerPoint slides are used they will be posted on Canvas. Suggested problems and worksheets will be posted on Canvas.