Instructor: David Stuart (dstuart@pdx.edu)

Course overview and strategy:
The material we will cover in this course will expand on the concepts from Chemistry 334 and rely on the fundamental aspects of structure and bonding in organic compounds and their relationship to reactivity. Throughout the course an effort will be made to emphasize the relevance of physical organic chemistry (thermodynamics and kinetics) on the (relative) reactivity of the functional groups we will explore. Synthesis and the ability to combine multiple reactions in a sequence to deliver a target compound is a practical expression of our knowledge of chemical reactivity, and in many cases a personal expression of our creativity. This course will not be taught from a viewpoint of synthesis, but rather we will use synthesis to highlight the utility of the reactions that we have explored. Thus, retro-synthesis and forward synthesis planning will feature prominently in homework problems as these types of questions help to cement the strategies and tactics of organic reactivity. One cannot simply read the textbook and expect a good grade in this class. Organic chemistry is a discipline that requires constant drilling and I strongly recommend that you do the homework problems and additional problems from the textbook. I also firmly believe that to truly appreciate and understand organic chemistry, memorizing the many reactions and reagents we will explore will be futile. Rather, by understanding the fundamental concepts of structure (hybridization) and bonding and the basic reactivity trends that result, you will be able to apply that knowledge to much more complex problems. I look forward to exploring organic chemistry with you over the winter term.

Course location and time:
• Hoffman Hall
• MWF 9:00-10:05 AM

Course material:
• Textbook: Organic Chemistry 4th Edition by Janice Smith. The bookstore has options to purchase hard or electronic copies of the text and these both come with access to Connect, which in absolutely necessary to complete the assigned homework and will be critical to your success in learning the material (see the McGraw-Hill flyer on the course site on d2l). In the lecture we will tentatively cover the second third of the text (chapters 11 – 20).
• A molecular model kit is highly recommended and I will use molecular models in class when applicable.
• The course website can be found at https://d2l.pdx.edu/. Important material (syllabus, link to Connect, handouts, and sample mid-terms) can be found there under the appropriate headings.

Homework:
The primary source of homework is the on-line homework system Connect. You are likely familiar with Connect from last term; however, if you are not there is a handout on d2l that walks you through set up (including contact information if you need assistance). There are two types of homework, each with a different objective. The Learnsmart modules are aimed at preparing you for the lecture material. It is expected that you will read the relevant chapter and complete the Learnsmart assignment before the material is covered in the lecture. The post-chapter assignments are assigned after we have completed a chapter. All homework assignments are weighted equally.
**Exams:**

We will have two mid-term exams (see dates below) and a final exam during finals week. All exams will be cumulative, though the mid-terms will place an emphasis on the most recent material. Etiquette and academic integrity will be strictly enforced. **Turn your cell phone off and put it away before the exam starts.** If your cell phone rings or your cell-phone is out your exam will be taken and you will be graded for what you have completed. You are **NOT** permitted to leave the room during the exam, if you do your exam will be taken and you will be graded for what you have completed. If you finish early you may hand in your exam and leave **UNLESS** it is the last 10 minutes of the exam, then stay seated and wait for me to call the exam.

*Re-grades: if you feel that a question has been marked incorrectly or the points have been added incorrectly, please staple a brief note to the front of your exam and hand it back to me at the NEXT lecture (no re-grade requests will be accepted after this point). If you ask for a re-grade on a specific question you are opening up the whole exam for a re-grade and points that were awarded incorrectly will be deducted. Also, please note that exams are photo-copied before they are handed back.*

**Grading:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>15%</td>
</tr>
<tr>
<td>Mid-term 1</td>
<td>20%</td>
</tr>
<tr>
<td>Mid-term 2</td>
<td>20%</td>
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<tr>
<td>Final</td>
<td>45%</td>
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</tbody>
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The final grades will be “curved”. If your final exam grade is better than both of your mid-term exam grades, your course grade will be derived solely from your final exam grade. There will be no other form of extra credit.

**Office hours:**

I will be available for extra questions and assistance after class on Mondays and Fridays from 10:30 – 11:30 in Science Building 1 room 304. Alternatively, appointments can be made via e-mail, however I cannot guarantee my availability outside of class and office hours.

**Students with disabilities:**

If you have a disability and require an accommodation to fully participate in this class, contact the Office for Students with Disabilities (OSWD). If you have an OSWD Accommodation Plan, you should make an appointment to meet with me to discuss your accommodations. Also, you should meet with me if you wish to discuss emergency medical information or special arrangements in case the building must be evacuated.

**Miscellaneous:**

All University policies that pertain to course registration (and withdrawal), academic integrity, etc will be strictly enforced. Please see the University Bulletin if you have additional questions.

**Course schedule:**

Please note that the course schedule is tentative and subject to change, **EXCEPT** the mid-term exam dates, those are firm.

**Week 1 (Jan. 6 – 10th)**

Monday, Jan. 6th: Lecture (Introduction and Chapter 11)
Wednesday, Jan. 8th  Lecture (Chapter 11)
Friday, Jan. 10th  Lecture (Chapter 11)

**Week 2 (Jan. 13 – 17th)**
Monday, Jan. 13th  Lecture (Chapter 12)
Wednesday, Jan. 15th  Lecture (Chapter 12)
Friday, Jan. 17th  Lecture (Chapter 12)

**Week 3 (Jan. 20 – 24th)**
Monday, Jan. 20th  Martin Luther King, Jr. Birthday (no class)
Wednesday, Jan. 22nd  Lecture (Chapter 13)
Friday, Jan. 24th  Lecture (Chapter 13; last day of material for mid-term 1)

**Week 4 (Jan. 27 – 31st)**
Monday, Jan. 27th  Lecture (Chapter 14)
Wednesday, Jan. 29th  Mid-term #1
Friday, Jan. 31st  Lecture (Chapter 14)

**Week 5 (Feb. 3 – 7th)**
Monday, Feb. 3rd  Lecture (Chapter 14)
Wednesday, Feb. 5th  Lecture (Chapter 15)
Friday, Feb. 7th  Lecture (Chapter 15)

**Week 6 (Feb. 10 – 14th)**
Monday, Feb. 10th  Lecture (Chapter 15)
Wednesday, Feb. 12th  Lecture (Chapter 16)
Friday, Feb. 14th  Lecture (Chapter 16)

**Week 7 (Feb. 17 – 21st)**
Monday, Feb. 17th  Lecture (Chapter 16/17)
Wednesday, Feb. 19th  Lecture (Chapter 17)
Friday, Feb. 21st  Lecture (Chapter 17; last day of material for mid-term 2)

**Week 8 (Feb. 24 – 28th)**
Monday, Feb. 24th  Lecture (Chapter 18)
Wednesday, Feb. 26th  Mid-term #2
Friday, Feb. 28th  Lecture (Chapter 18)

**Week 9 (Mar. 3 – 7th)**
Monday, Mar. 3rd  Lecture (Chapter 19)
Wednesday, Mar. 5th  Lecture (Chapter 19)
Friday, Mar. 7th  Lecture (Chapter 20)

**Week 10 (Mar. 10 – 14th)**
Monday, Mar. 10th  Lecture (Chapter 20)
Wednesday, Mar. 12th  Lecture (Chapter 20)
Friday, Mar. 14th  Lecture (Review; last class)

*Please note: as the instructor, I reserve the right to change any part of this syllabus at any time during the course.*