Class Times: Class is in W290CB on MWF from 9:30-10:20 AM. Tests are scheduled on Wednesdays from 8:45-10:15 PM in SHAM LIB and W10 PBB. I will announce room assignments before each exam. The date for the final exam will be announced during the semester.

Note: I do not have a make-up final. If you miss the final, you have to either take a zero or take the final at the end of the Summer of Fall 2016 session.

Contact Info: W425 Chemistry Building
335-1198
ned-bowden@uiowa.edu

Course Website: ICON, http://icon.uiowa.edu

IMPORTANT: To reach me or set an appointment please send an email and I will try to respond quickly. I rarely answer my phone, so calling me is a waste of time. Email is a much better way to reach me.

Office Hours
I reserved these times for you and am happy to meet and discuss problems you are having. If these times do not work for you, we will set an appointment by email to meet another time.

My office hours are on Mondays immediately after class from 10:30-12:00 and on Wednesdays from 12:00-1:30 PM in my office (W425 CB).

Discussion Sections
Binita Maharjan and Shweta Pandharinath Yelgaonkar will lead these discussions. This time is reserved for problem solving, discussion of lecture material, and explanations of exam answers. I strongly encourage you to attend these sections as the TAs are excellent and can help you learn the material.
Binita can be reached at binita-maharjan@uiowa.edu and her office hours are Fridays from 10:30-12:30. Shweta can be reached at shwetapandharinath-yelgaonkar@uiowa.edu. Her office hours are 2:30-4:30 on Thursdays. The office hours are in the TA center on the second floor of the chemistry building.

Why Are You in This Class?
Organic chemistry is a beautiful subject! I taught this class before and know that most of you are “pre” students. By this statement I mean that you are premed, prenursing, prepharmacy, prelaw, or another variant. This class is required for entrance into a professional school or is needed to prepare you for a nationwide test. These are all fine reasons for taking this class and I am glad you are here. My goal is to teach you some of the most beautiful parts of organic chemistry in hopes that you may remember it down the road when I am one of your patients in an emergency room, dental office, or pharmacy.

In this class you are going to learn how to think critically. Organic chemistry is more than the memorization of a bunch of facts and it is certainly more than applying a few simple rules to get the right answer. **Organic chemistry is 90% science and 10% art;** I can teach you the right rules and how to think about problems in organic chemistry, but you must learn how to apply these rules. This class is considered tough because it is unlike others that you have taken before. You will not have a series of equations from which you may derive answers. You will have a bunch of facts and you must learn how to think critically to solve problems. Therefore, you must learn to think like a detective and piece answers together with everything that you know. I will help you as much as I can to learn these skills.

How to Study for This Class
This class is not one where you can look over the material right before the exam and expect to do well. This class requires constant and diligent effort in order to do well. I compiled a list of suggestions to help you succeed. These are only suggestions; some of you may be naturals at organic chemistry and can get by with less work, but for the other 99% of the class this list will help you get the grade that you want.

If you need extra tutoring, it is available through the University Housing Tutoring Program at [http://housing.uiowa.edu/departments/reslife/academic_initiatives.html](http://housing.uiowa.edu/departments/reslife/academic_initiatives.html). I am not affiliated with this program; I am passing the information to you nonetheless.

1. Study for this class at least two hours a day. Organic chemistry is hard to learn but with consistent effort you can do it. Some of you will spend more time; others will spend less time depending on your abilities, motivation, and expectations for a grade.

2. Do all of the homework and suggested problems. You will learn from doing the homework, you will learn by struggling with the homework! Learning occurs when you are forming questions in your mind and seeking the answers; learning does not happen when you are copying someone else’s work. Your grade in this class depends on your test taking skills so use the homework to learn the material.

3. Form study groups.

4. Skim the text before coming to class.

5. Go to the discussion sections and ask questions.
6. Rewrite your lecture notes. You will be surprised as to how much this will help you learn the material.

7. Study with a pencil and paper nearby! You will learn the material best by writing it down in your notebook as you are studying. Most people don’t learn well by sight alone, you must use your hands when you study.

8. Read the book. Reread the book. Rereread the book. The class is based on the material in the book so if you are happy with the material in the book you will do well in the class.

9. Study regularly!

**What You Should Take Away From This Class**

1. The ability to draw mechanisms for simple organic reactions
2. Knowledge of common reactions
3. Understand functional groups and how to convert from one to another
4. Understand how to apply organic chemistry to a variety of fields including most things biological.
5. The ability to name molecules and recognize key functional groups
6. Understand some of the how and why of organic chemistry.

**Exams**

There will be four hourly exams on the following days.

- Wednesday, February 10
- Wednesday, March 2
- Wednesday, March 30
- Wednesday, April 27

The exams will last for 1.5 hours.

Leave all textbooks, models, notes, etc. at home or you will be required to leave them in the front of the classroom during the exam. The tests will be written to require short answers; I have yet to give a multiple choice question on any exam. The exams will be closed book and the answers should be written in blue or black ink. Exams written in pencil will not eligible for a regrade. Exams will be returned after they are graded on the Monday following the exam. We will return them in class and then they will be available at the chemistry center on the second floor of the chemistry building (E225 CB) immediately after class. Your grades will be posted on ICON as soon as possible.

Each exam is comprehensive but will emphasize material since the previous exam. Organic chemistry builds on what was learned before, it is important to continually add to your fountain of knowledge. Exams must touch on material that was learned earlier in the semester, but in most instances I will use concepts that we covered since the previous exam. It is wise to review all of the material since Day 1 for each exam.

Anything that is covered through the end of class on the day before the exam is fair game for the exam. I more or less follow the book, so you will be able to determine where I stopped on the Monday before the exam. If you have any doubt, study for the whole chapter that we are working on.
I will put old exams and their answer keys on line. *Old exams are a poor method to determine what material will be covered on your exam.* The reason for this statement is that I may emphasize different material from semester to semester, so the questions and material will differ from year to year. Do not feel that if you did well on an old exam you will do well on the regular exam. Before an exam, I will typically tell you what types of questions to prepare for, but I will not tell you what will or will not be on the exam. If it is in the book or was covered in class, it is fair game.

The final exam will be comprehensive.

**Homework**

Homework is critical to help you learn the material. A poor, but common way, to do the homework is to look at the problem and answer key. Many students will look at a problem in the book, write nothing down, and then look at the answer key. Is this how I will test you? Will I ask you a question, give you the answer, and then ask you if the answer is correct? The best way to do the suggested problems is to look at the problem, write down your best answer, and then look at the answer key. It is O.K. to struggle with the material, that is how you learn! You are expected to not know all of the answers immediately, you will learn quite a bit by determining the correct answer without the answer key.

I list suggested problems for each chapter at the end of the syllabus. When I write the exams, I will expect that you understand these questions and answers.

The on line homework on Sapling will force you to draw structures, learn concepts, and prepare you to excel in this course. These problems are critical to learning organic chemistry, so we will take advantage of Sapling.

I will post two homework assignments for each chapter. One assignment will be short and due while we are covering a chapter. This chapter will be useful because it will provide motivation to work some problems and become aware of the chapter as we are discussing it. The second assignment will be longer and it will be due after we finish a chapter. It will give you a chance to work some problems and better learn the material.

For the second, longer assignment I will give you at least one week to complete it, the due date and time will be clearly listed in Sapling and ICON. I will try to give you a week to complete the first, shorter assignments although due to scheduling that may not happen every time. I will not make regular announcements in class about these assignments, you should assume we are going to have regular homework assignments and look on Sapling for them. I will also post the assignment due dates on the calendar on ICON so you can look there for them.

The homework questions will be assigned at random from a pool of questions so folks working on adjacent computers will get different questions. Because of this, I am assigning the homework as “full collaboration”. That phrase means that you may work with your classmates, friends, tutors, or anyone else to complete the homework. You may work alone if you wish, but no penalty will be given to those who work together. This policy does not mean that you should copy someone else’s homework; that is not allowed and will be viewed as cheating. You must make an honest effort to complete the homework and understand the answers. One good method to know if you understand the answers is to ask yourself if you can reproduce your homework if you are alone in front of the computer. If you can reproduce your homework, you have some level of understanding of it. Homework is an excellent vehicle for learning class material, take advantage of this opportunity and you will do well on the exams.
The instructions for each assignment will be clearly listed on each assignment.

**Late Policy for Homework**
No late homework or extensions will be given. Instead, you will be allowed to drop your lowest 2 homework scores. If you miss a homework, that can count as one of your dropped scores.

**Grading**
The College of Liberal Arts and Sciences strongly suggests the following grade distribution.
18% A  
36% B 
39% C  
5% D 
2% F

The grade distribution will be close to these values, but it may vary based on class performance. Plus and minus grades will be given, they are left to the discretion of the instructor at the end of the semester.

You will be graded on the four hourly exams, homework, discussion section attendance, and a final exam. Your final grade will be calculated as follows.

Four hourly exams: 60%  
Final exam: 20%  
Homework: 17%  
Discussion section attendance 3%

Your test scores will be posted on ICON. I will post the grade distributions for each exam on line so that you know how you did on each exam.

**Attendance at Discussion Sections**
Attendance at discussion sections will count for 3% of your overall grade. The TA’s will track attendance and we will post it on ICON. I will leave it up to the TA’s discretion whether or not you attended the discussion section. If you come at the beginning, sign your name, and then leave the TAs will be instructed to remove your name and count you as missing. The same holds true if you show up and spend the 50 minutes surfing the internet, reading a paper, or texting. These discussion sections can greatly help you learn the material, they should be used properly.

If you cannot attend your discussion section, feel free to attend a different one. Also, there will be 14 weeks with discussion sections, and you can miss two weeks without a penalty. I will not excuse absences for any reason, if you must miss one week it can count as one of your weeks that you are allowed to miss.

**Supplemental Instruction**
David Donovan will lead the Supplemental Instruction for this course. He is a fourth year student studying Biomedical Engineering. His supplemental instruction will be in the ARC (Academic Resource Center) located on the Ground Floor of the IMU. It is to the right of Hills Bank and across from the Java House. The times for the instruction will be as follows.

Tuesdays: 11:00-11:50 AM  
Thursdays: 1:00-1:50 PM  
Fridays: 12:30-1:20 PM
**Regrades**
If you feel that your test has been graded unfairly you can ask for a regrade. Write the reason for your regrade on the front of the test and **submit it to me or the chemistry center after class within one week after the exam was available to be returned.** The whole exam may be regraded. Regrades are not possible on tests written in pencil or erasable ink.

**Make-up Exams**
Make-up exams will only be provided under exceptional circumstances. A valid, written excuse must be provided **prior to a missed exam to the instructor.** If you anticipate having a conflict with an exam, please see me ahead of time. If you miss an exam for unforeseen reasons and have not provided a valid, written excuse to the instructor prior to the exam, you have one week after the exam to provide me with a valid, written excuse. There will only be one make-up exam for each hourly exam.

**Cheating**
Our scientific environment is maintained through the actions of its members and the trust we place in one another. Scientists are expected to remain honest in their words and actions. When this trust is broken the results are often severe and career threatening. One should not cheat on the false assumptions that 1) no one is harmed if no one is aware of the cheating or 2) it is alright to cheat if you aren’t caught. A good scientist will hold themselves to a higher standard where cheating, even if it isn’t discovered, is wrong.

With this important responsibility comes the privilege of being a member of a community that values openness and truth. As you are all scientists in training I will expect you to act accordingly and with an upright manner. Anyone caught cheating will flunk and will be reported to the administration.

**Attendance**
Attendance is not mandatory but encouraged. I may introduce material outside of the book; you are responsible for learning that material as it **may appear on an exam.**

**Course Objective**
Organic chemistry books are written such that someone can earn money from their sale, to sell a book it must cover more material than is reasonable for a one year course. We will try to cover as much of the book as possible without going too fast. We will cover chapters 13-14 and 16-25. We will also cover parts of chapters 26-31. How much of chapters 26-31 we cover will depend on how much time is left at the end of the semester.

**Required Textbook**

**Suggested Textbook**
David R. Klein, Organic Chemistry II as a second language, 2nd edition, John Wiley and Sons. This book is an excellent vehicle to help you learn organic chemistry and would be wise to purchase.

**Suggested Model Kit**
The AXE house and the bookstore offers model kits and I strongly suggest purchasing one. It will greatly help you to “see” organic molecules in three-dimensions.

**Disabilities**
I would like to hear from anyone who has a disability which may require some modification of seating, testing, or other class requirements so that appropriate arrangements may be made. Please contact me during my office hours.
Administrative Home
The College of Liberal Arts and Sciences is the administrative home of this course and governs matters such as the add/drop deadlines, the second-grade-only option, and other related issues. Different colleges may have different policies. Questions may be addressed to 120 Schaeffer Hall, or see the CLAS Academic Policies Handbook at [http://clas.uiowa.edu/students/handbook](http://clas.uiowa.edu/students/handbook).

Electronic Communication
University policy specifies that students are responsible for all official correspondences sent to their University of Iowa e-mail address (@uiowa.edu). Faculty and students should use this account for correspondences ([Operations Manual, III.15.2, k.11](#)).

Accommodations for Disabilities
A student seeking academic accommodations should first register with Student Disability Services and then meet privately with the course instructor to make particular arrangements. See [www.uiowa.edu/~sds/](http://www.uiowa.edu/~sds/) for more information.

Academic Honesty
All CLAS students have, in essence, agreed to the College's [Code of Academic Honesty](#): "I pledge to do my own academic work and to excel to the best of my abilities, upholding the [IOWA Challenge](#). I promise not to lie about my academic work, to cheat, or to steal the words or ideas of others; nor will I help fellow students to violate the Code of Academic Honesty." Any student committing academic misconduct is reported to the College and placed on disciplinary probation or may be suspended or expelled ([CLAS Academic Policies Handbook](#)).

CLAS Final Examination Policies
The final examination schedule for each class is announced around the fifth week of the semester by the Registrar. Final exams are offered only during the official final examination period. No exams of any kind are allowed during the last week of classes. All students should plan on being at the UI through the final examination period. Once the Registrar has announced the dates and times of each final exam, the complete schedule will be published on the Registrar's web site.

Making a Suggestion or a Complaint
Students with a suggestion or complaint should first visit with the instructor (and the course supervisor), and then with the departmental DEO. Complaints must be made within six months of the incident ([CLAS Academic Policies Handbook](#)).

Understanding Sexual Harassment
Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI [Comprehensive Guide on Sexual Harassment](#) for assistance, definitions, and the full University policy.

Reacting Safely to Severe Weather
In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit the [Department of Public Safety website](#).
Suggested Problems

Chapter 13: 25, 26, 28, 30, 31, 33, 37, 39, 40, 42, 43, 45, 46, 48, 51, 54, 55, 56

Chapter 14: 36, 40, 41, 42, 44, 45, 50, 51, 54, 56, 59, 60, 61, 62, 64, 66, 69, 70, 73, 75, 77

Chapter 16: 32, 34, 36, 40, 42, 44, 47, 50, 51, 53, 54, 58, 61, 62, 65, 67, 69, 72

Chapter 17: 32, 33, 34, 35, 36, 39, 40, 41, 45, 47, 49, 50, 53, 55, 56, 58, 60, 64, 65, 66

Chapter 18: 36, 38, 40, 42, 44, 47, 48, 51, 53, 55, 58, 60, 62, 66, 68, 71, 73, 74, 76, 78

Chapter 19: 32, 33, 34, 36, 38, 41, 43, 46, 48, 50, 53, 56, 57, 59, 65, 69, 70, 73

Chapter 20: 38, 40, 43, 45, 46, 47, 50, 52, 54, 55, 56, 59, 62, 65, 70, 72, 74, 75, 77, 79, 80, 83

Chapter 21: 45, 47, 48, 50, 52, 53, 54, 58, 60, 63, 65, 67, 68, 69, 70, 72, 73, 75, 77, 79, 80, 81, 82, 83, 87, 88

Chapter 22: 43, 44, 46, 47, 50, 51, 53, 55, 57, 59, 60, 62, 64, 66, 68, 69, 72, 74, 76, 77, 81, 83, 84, 86, 88, 90

Chapter 23: 33, 35, 36, 38, 40, 42, 44, 45, 47, 48, 50, 51, 52, 54, 56, 58, 59, 61, 63, 66, 67, 70, 73, 74, 76

Chapter 24: 28, 30, 33, 34, 36, 37, 40, 42, 43, 45, 46, 48, 50, 52, 53, 54, 57, 59, 60, 62, 66, 67, 69, 72, 74

Chapter 25: 45, 47, 50, 52, 53, 55, 57, 59, 60, 63, 65, 66, 68, 70, 72, 74, 76, 79, 82, 84, 85, 86, 90