

CHEM 343: Introductory Organic Chemistry

Contact Information

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Lectures

MTWR 10:20-11:35 AM
Room 1361

Office Hours

Mondays and Wednesdays 2:30-3:30 PM
Room TBA
(or by appointment)

Textbook

Organic Chemistry, 5th Ed., Marc Loudon

Grading

There are four exams plus the final exam. Each exam will be worth 100 points, with the final exam worth 200 points for a grand total of 600 points. The exams will be held in 1361 during the class time. For the final exam, please reserve an extra 45 minutes, so that you will have 2 hours to take the final exam. If you have a conflict, please email me *ASAP* so alternative arrangements can be made.

ABCDF SIMPLY STATED

If you earn 90% of the total points, you will receive an A.

If you earn 75% of the total points, you will receive *at least* a B.

If you earn 57% of the total points, you will receive *at least* a C.

If you earn 40% of the total points, you will receive *at least* a D.

Exam regrade policy: Mistakes in exam grading will occasionally be made. You will have one week after receiving the exam to submit the entire exam for regrading. Keep in mind, since mistakes may or may not be in your favor, the exam grade can actually be lowered. All decisions on the regrades are final.

Philosophy

Organic chemistry has been compared to a science, an art, even a foreign language. It is pretty much all of those. In order to succeed in this course, you will need patience, vigilance, and imagination. There are three interlaced components to Chem 343: Structure, Mechanism, and Synthesis.

- Structure:* What does a compound look like? Is it happy?
requires imagination
- Mechanism:* How and why does a molecule do what it does?
requires pattern recognition
- Synthesis:* Can we get molecules to work together to form a new molecule (preferably of our choosing)?
requires strategy

The best way to understand organic chemistry is constant practice. The TA's and I will do our best to provide quite a bit of practice in the form of problem sets and practice exams. Should you desire more practice, there are the problems at the end of each chapter in the book as well as multiple websites on the internet. Should you find a discrepancy in what the TA's, book, internet, or myself say, please bring it to our attention immediately. It may be a case of a subtlety, an outright error, or an over generalization. Regardless, we'll try to explain the discrepancy.

Discussion Sections:

Due to the generous funding by the Madison Initiative for Undergraduates, we are able to offer discussion sections for this semester. These sections are optional, but I highly recommend that you register and attend them regularly. Discussions will be held on Tuesdays and Thursdays. Discussion sections will not be held on exam day. Instead, a review session will be scheduled the previous night and a last minute "help center" for simple questions will be set up the morning of the exam.

Section	Room	Time	TA
1	B351	8:55-10:00 am	Adam Powell
2	B351	11:45-1:00 pm	Adam Powell
3	2311	1:10-2:25 pm	Andrew Pham
4	B387	2:35-3:50 pm	Andrew Pham

CHEM 343 Schedule

Monday	Tuesday	Wednesday	Thursday
June 13 Periodic Trends Bonding Pages 1-45	14 Hybridization Functional Groups Pages 122-146 Pages 646-648	15 Resonance Isomers Pages 709-715	16 Alkanes Conformations Pages 46-86 Pages 268-298
20 Acid/Base Chemistry Pages 87-121	21 Acid/Base Chemistry	22 EXAM I	23 Stereoisomers Pages 226-267
27 S_N1 Substitutions Pages 377-423	28 S_N2 Substitutions Pages 492-495	29 E2 Eliminations	30 E1 Eliminations Pages 169-171 Pages 436-440
July 4 NO CLASS	5 Carbocation Rearrangements Pages 439-441, 154-157	6 Ether Synthesis Pages 482-484	7 EXAM II
11 Alkynes/Alkenes Pages 166-167 Pages 659-667	12 Alkene Addition Reactions H_2O Br_2 Pages 178-225	13 Alkene Addition Reactions HBr Pages 147-166 Pages 200-214	14 Epoxides Pages 495-499 Neighboring Group Pages 510-517
18 Grignard Reaction Organolithiums Pages 361-364 Pages 500-501	19 Good Leaving Groups HBr Pages 440-451	20 EXAM III	21 Alkenes Oxidation OsO_4 , HIO_4 , $KMnO_4$ Pages 503-507
25 Ozonolysis Pages 196-199	26 Alcohol Oxidation PCC and $K_2Cr_2O_7$ Pages 459-464	27 Radical Halogenation Pages 364-365	28 EXAM IV
August 1 Conjugated Systems Diels-Alder Pages 676-709	2 Aromaticity Pages 716-730	3 Review	4 FINAL EXAM