

FUNDAMENTALS OF ORGANIC CHEMISTRY
Bloomsburg University of Pennsylvania
Fall 2009

MWF 9-9:50 am in Navy Hall 221

Optional Review Session Fridays 1:15-3:00 pm in Columbia LLC

2 Laboratory Sections in Hartline 263:

230-01 M 2 pm-4:50 pm (Dr. Morgan)

230-02 M 6 pm-8:50 pm (Dr. Cindy Kepler)

VERY IMPORTANT NOTE: This course is a terminal course in organic chemistry. It is **NOT** designed to be taken as a replacement for Organic Chemistry 1 (52.231). This course is designed for non-chemistry majors who require exposure to organic chemistry. This course is as academically challenging as is Organic Chemistry 1.

Professor: Dr. John P. Morgan, Office: Schuylkill basement, 389-5315
jmorgan@bloomu.edu (email is the most reliable way to contact me)

Office Hours: M 5-6 pm; W 12-2 pm; F 1:15-3 in Columbia LLC or by appointment
You are encouraged to stop by my office if you have problems or questions! If my door is open, chances are good that I'll help you immediately, even without an appointment.

Texts: 1) Brown, W.; Poon, T. *Introduction to Organic Chemistry, Third Edition*, John Wiley and Sons: New York, 2005.
2) *Prentice-Hall Molecular Model Set, 2nd Edition*, Prentice Hall: New Jersey, 1983. **Any molecular model set made for organic chemistry** is sufficient.
3) *Chemistry 230 Lab Manual, Fall 2009 (revised)*. Bloomsburg University, 2007.

Recommended Texts: 1) Zubrick, J. W. *The Organic Chem Lab Survival Manual, 5th Edition* or later, Wiley: New York, 2000 or later.
2) Klein, D. R. *Organic Chemistry I as a Second Language: Translating the Basic Concepts*. Wiley: New York, 2003. **I can't stress this enough: This book is like gold! Students in the past have RAVED how helpful it is!**

You will also need one composition notebook for lab (no spiral-bound notebooks), safety goggles or glasses with side shields, and an inexpensive scientific calculator (calculators that are capable of storing alphabetic characters or transmit information are forbidden for use on exams and quizzes).

Grading: Three exams: 30% (W Sep 30th; W Oct 28th; F Nov 20th)
Comprehensive Final Exam: 20% (Th Dec 17th, 3:30-5:30 pm in Navy 221)
Laboratory: 25%
Quizzes (every two weeks, on Fridays at the beginning of class): 10% (your lowest quiz grade will be dropped)

Homework: 15% (collected two weeks after it is assigned)

Extra credit offered at instructor's discretion

The homework problems will be more heavily graded on their *completion* rather than their *correctness* (if a serious effort is made). Organic chemistry is only learned by *writing* and *doing*, not by passively absorbing in lecture!

Late Policy: For the first WEEK late, your total penalty is 20%. That is, you can hand in assignments up to one week late for 80% of the total credit. After one week past the due date, the assignment is worth 0%. This late policy is designed to foster attention to detail and completion of all assignments without undue penalties. I recognize that you may be “swamped” in other courses with exams, labs, etc. so I feel that the extra time may be just what you need to complete the assignment. PLUS – stop by my office to ask questions!

Tentative Grade Scale: 90-100 = A 88-90 = A-
 86-87 = B+ 80-85 = B 78-79 = B-
 74-77 = C+ 67-73 = C 65-66 = C-
 63-64 = D+ 55-62 = D 0-54 = E

I reserve the right to lower the limits for the grade scale based on student performance. **This grading policy is not a curve!** However, your latter performance may influence your final grade, especially for borderline cases – improvement over the course of a semester will often be rewarded!

Last day to withdraw from the course: F 11/6 – 4:30 pm.

****Please see me *and* the Office of Accomodative Services (Ext. 4491) by the end of the first week of class if you have special needs for this class****

Exam Make-Up Policy: Exams and quizzes can only be made up if you have a **documented** valid excuse. Valid excuses include: 1) personal illness, as verified by a valid medical excuse, 2) death or critical illness in the immediate family 3) participation in a university-sponsored activity 4) Active government duty, including military service. Exam dates are announced in this syllabus so you can plan to be present. I must be notified of your absence **at least 24 hours prior** to the exam for a non-emergency situation. **For emergencies**, I will accept notification **up to 24 hours after the exam**. I can be contacted by phone or email. If I am not available, leave a message with the department secretary. In this regard, there is no excuse for not contacting me. It is your responsibility to verify that your message reached me! Excuses presented to me after the missed exam **will not be accepted for any reason**.

NOTE: If you must leave campus for a family emergency, notify your dorm RA, dorm director, or the Office of Student Life (x4062). They will officially notify all of your professors that you had to leave school temporarily.

Code of Conduct:

- **Be on time for class.** Lateness is never professional and disrupts the class.

- **Turn off *and put away* all devices that may make a disturbing noise,** including all communications devices (cell phone, PDA, MP3 player, etc.).
- **Be respectful of your fellow classmates: be quiet and remain in your seat during class.** Chances are that your peers are here to learn, not to listen to your dramatic recap of last night's sports game.
- **Be honest, both with regard to your own work and to others' as well.** We all have an idea of what is "academically honest", but if you have any questions please ask the instructor before engaging in the act. Any act of dishonesty committed by a student will result in an immediate "E" grade assignment for the term.
- **Realize that your classmate's health may depend on you!** This fact applies primarily to the laboratory. We are all responsible for safety.

You will receive only one warning for violations of the code of conduct. Further problems will be "rewarded" by dismissal from that particular lecture/laboratory period. Repeat offenders may be removed from the course at instructor's discretion.

Laboratory: **In order to pass, you are responsible for *completing* all work in the laboratory section of the course, including all written assignments.** I repeat: It is not possible to pass the course without completing all lab work! You may not "sacrifice" part of the lab grade if you are doing sufficiently well in the other coursework.

If you miss your assigned laboratory section for any reason, please talk to your laboratory instructor. Separate grades will be assigned for laboratory work. For a detailed point breakdown please see the lab syllabus in the lab manual. The point breakdown and laboratory schedule may be altered at any time at instructor's discretion.

Nuggets of Wisdom:

- **Work all problems and do all reading assignments!** Practice makes perfect, and organic chemistry is all about applying what you learn to new and interesting situations. The only way to do this is to follow the Boy Scout Motto: **Be Prepared!**
- **Ask questions.** It is never appropriate to leave a question unasked. Whenever. Wherever. Whatever. For whatever reason.
- **Build models.** It is a tragedy that the vast majority of organic students I've tutored in the past have never cracked the shrink wrap on their model set. Never assume you can "picture" a new concept in your mind. Build the model! Sometimes things only become clear when you see and feel them in 3D.
- **Work on organic chemistry every day.** I do it, so can you. Why? Any organic chemist will tell you that organic chemistry has a high "vapor pressure." In other words, you need to constantly reinforce it to learn it well!
- **Have fun** with it. If you feel overwhelmed, stressed, or burnt out, you've been spending too much time with your chemistry. Take a break and get back to it later on. Organic chemistry is actually fun, especially when you consider that the majority of materials you encounter on a daily basis are organic.

Tentative Topics Schedule:

Week Beginning	Topic	Chapters in Brown and Poon
August 31 st	Hydrocarbons	Ch 1 and 3
September 7 th	Stereochemistry	Ch 6
September 14 th	Stereochemistry	Ch 6
September 21 th	Acids and Bases	Ch 2
September 28 th	Acids and Bases	Ch 2
October 5 th	Nucleophilic Substitution/ Elimination	Ch 7
October 12 th	Nucleophilic Substitution/ Elimination	Ch 7
October 19 th	Alcohols, Ethers	Ch 8
October 26 nd	Alkenes	Ch 4 and 5
November 2 nd	Alkenes	Ch 4 and 5
November 9 ^h	Aldehydes/Ketones I	Ch 15
November 16 th	Aldehydes/Ketones II	Ch 16.1-16.3 and 16.6
November 30 th	Carboxylic Acid Derivatives	Ch 14 and 15
December 7 rd	Esters and their Reactivity: Claisen Condensation	Ch 16.4-16.5