



Outline of the Intro to Organic/Biochemistry

Course Description

This course covers the general principles of organic compounds in the first half of the course. The second half of the course is dedicated to how those compounds function in living systems (biochemistry).

Course Mechanics:

- 3 hours of lecture a week (or 5 hours of online video)
- One 2-4 hour lab a week with lab report.
- Two midterms (online or in class)
- One final (almost always in class)

A typical student should expect to spend about 5-10 hours in class (or watching online videos) and an additional 10 doing homework and studying per week.

Topics Covered and Required Prereq skills

Topic	Prereq required
Alkanes	None
Alcohols, Phenols, and Ethers	None
Aldehydes, Ketones, Carboxylic Acids	None
Amines, Amides, and Proteins	None
Enzymes, Carbohydrates, and Lipids	Aldehydes, Ketones, and Carboxylic acids
Nucleic Acids, Protein Synthesis, and Metabolism	Amines, Amides, and Proteins

PREPARING FOR THE COURSE

The following things can be done to help prepare for the course.

Purchase 3x5 notecards: There is quite a bit of memorization in CHEM 131. It is a good idea to make flash cards to help memorize the families of organic molecules, naming and reaction types. The reactions learned in the first half of the quarter are critical for academic success in the second half.

ADDITIONAL RESOURCES

Preview: It would be good to preview the topics of: type of reactions, drawing Lewis structures, and Valence Shell Electron Pair Repulsion (VSEPR) theory.

Online Chemistry Materials:

<https://www.khanacademy.org/science/chemistry>

<http://healthcareerfund.org/files/2014/07/ChemistryOrganicChemistryOnline-Resources.pdf>

Review previous chemistry materials: If you have had high school chemistry or college intro to chemistry recently, and have access to an old text book, you can use these to review.

Solutions manual: Often times your course text book will come in 2 packages: one with just the book, and the other with the corresponding solution manual/study guide. It is recommended to get the package with the additional materials if available.

Training Fund Tutoring:

Both online and in-person tutoring is available by request. Check out:

<http://healthcareerfund.org/tutoring/>