MCPHS UNIVERSITY

Fundamental Foundations

A Peer Led Study-by-subject guide

Organic Chemistry

Getting Started

"Practice every week, in whatever way works for you. Whether you read, do flashcards, take notes, or draw pictures, or teach it to someone, if you do it continuously throughout the semester, it will begin to sink in." Allison B., Pharmacology and Toxicology '13, peer tutor

"To get a strong start on the subject, it is important to know general chemistry. Reviewing valence electrons, molecular bonding, periodic table trends, and different bond types is important for the understanding of Organic Chemistry." Christina K., Premedical and Health Studies '13, peer tutor

*"The best thing to do with this course is to do the problems in class until you understand how they work and why the answer is what it is."*Steven G., Pharmaceutical Sciences '14, peer tutor

Tackling the Test

The biggest thing is flexibility. Be able to apply your information to different situations on the test.

Make your own practice test to make sure that you fully understand the course material.

Know your reactions inside and out. This will allow you to concentrate on the more challenging exam questions.

Try to generalize the rules for reactions so that you have a place to start on a problem.

Active Learning Strategies

- Use the molecular models to visualize the molecules as 3D structures.
- Study concepts. Constantly ask yourself why and how, and then use this approach when learning about mechanisms and about how each reaction works.
- Buy molecular models and set aside time after every class just for building molecules. Build the molecules discussed in class as well as the ones in the book.
- List every reaction discussed in the course by molecule type in order to understand what combinations of molecules can be used to synthesize others.
- Read every chapter before the professor presents it so that you will have an easier time keeping up.
- Draw organic molecules over and over to master the fundamentals.
- Write, rewrite, and rewrite again. Don't leave out reactions, structures, formulas, and concepts.
- Take notes, draw charts, and use those other active learning strategies to process and organize that information in your own words.
- Talk the reactions out with study partners to better understand them.

Do's and Don'ts

Do…

- Listen to other people's points of view to see the material from different perspectives in order to learn.
- Go to peer tutoring. Sometimes a tutor can help fill in the missing gaps about important concepts.
- Focus on both memorization and comprehension when you study.
- Make up your own mnemonic devices and tricks to remember related pieces of information.
- Explain material to yourself and friends in layman's terms, not just scientific terms.
- Make up practice problems and speak with a professor if you get confused.

Don't…

- Try to study everything at once. It can be overwhelming and confusing if it is not broken up.
- Ignore a vocabulary word if you don't know what it means.
- Memorize each reaction using only the sample problem. It must be applied to different situations.
- Forget to make your own connections or study the subject in your own way.
- Highlight everything and consider yourself done, or think that reading is the only studying necessary.

Memory Tips

- Use repetition to remember definitions, structures, and reactions. Write and recite them over and over.
- Find something memorable about the information. One way or the other, connect the information in a way that is meaningful to you. It can be silly, fun, or nonsensical, as long as it works!
- Learn everything in your own words. Sometimes when a professor says something or when you read something, a particular image or word will pop into your head. Use that!

Finishing Your foundation

"*As always, the most successful students use as many learning strategies as possible. I would encourage students to remember to do three things: write, rewrite, and rewrite again, teach it to someone, and use the molecular models*." Allison B., Pharmacology and Toxicology '13, peer tutor

"*Another suggestion I would make is attending tutoring sessions. I have seen students go from failing to high averages by attending tutoring sessions. By listening to other people's points of views, they can perhaps see it from a different perspective and learn that way. Although there is a bit of memorization involved in Organic Chemistry, a lot of it is understanding. If you need help on getting it, going over it by yourself over and over may not be enough. Some times going to see a tutor will help fill in the missing gaps you had on certain important concepts*." Christina K., Premedical and Health Studies '13, peer tutor

"The best thing to do with this course is to do the problems in class until you understand how they work and why the answer is what it is. Repetition of the same question over and over again helps to build on key concepts with the material being covered in class." Steven G., Pharmaceutical Sciences '14, peer tutor

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Please note: This handout is a compilation of resources provided by peer tutors and academic support professionals. This information is meant to supplement recommended study techniques provided by course professors, peer tutors, the Math Center, the Writing Center, and the Academic Resource Center. They are not intended as a replacement for MCPHS resources, faculty and staff, class attendance, course syllabi, or course materials. For additional information, please contact the Academic Resource Center at 617.732.2860.