FAST FACTS

How to Succeed in Organic Chemistry

By Jessie Merlin

It is true that many people don't succeed in organic chemistry, and that it requires you to use parts of your brain that may have lay dormant for years. Some people find this to be difficult—and it is! But once you start to really understand the material, organic chemistry may just be the most rewarding class you have ever taken.

It's the first day of organic chemistry, and your professor tells you to take a look at the two people you're seated next to, because by the end of the semester one of them will be gone. Your advisor tells you that organic chemistry is different from other science classes, and upperclassmen say its hardest class you'll ever take. What is all the hype about?

It is true that many people don't succeed in organic chemistry, and that it requires you to use parts of your brain that may have lay dormant for years. Some people find this to be difficult—and it is! But once you start to really understand the material, organic chemistry may just be the most rewarding class you have ever taken.

If you've ever found yourself asking your biology or chemistry professors why something happens, chances are you'll learn the answer in this course. Organic chemistry deals with molecular structure (what molecules are shaped like and how this influences their properties) and reaction mechanisms (the precise pathways by which chemical reactions proceed). These concepts are fundamental to understanding biology, chemistry, biochemistry and the molecular foundations of medicine. However, because this material is not usually broached in introductory courses, you must become well versed in the language of organic chemistry while learning the other information. For these reasons, its time to think back and remember the study skills you've used in other classes because—as important as they were before—they are even more important now.

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Top 10 Organic Chemistry Study Skills

Following is a list of organic chemistry study skills that I used when I took organic chemistry, which I also taught to folks like yourself as a Supplemental Instruction leader. I hope you find them as helpful as I have. Good luck to you!

10. Start studying organic chemistry from Day 1, and don't stop until you've taken the final.

The pace of organic chemistry is faster than most classes, so if you fall behind even for a few days, it may feel like you're racing to catch up.

9. Review lecture notes carefully, as if your life depends on it!

You've heard this a million times. A million and one won't hurt. Because organic chemistry requires you to learn the language of nomenclature and mechanisms, and because each lecture depends entirely on the one before it, taking fifteen minutes each day to review your notes will improve your understanding of the material.

8. Be an active learner—especially when you are writing mechanisms. Continually ask yourself, "What does this mean?"

It's easy to copy the material that the professor puts on the board. But, make sure you understand every step of the mechanism and, if you don't, find out!

7. Question others—your professor, your TA, your friends. Asking questions is key!

Sometimes, people who teach organic chemistry have been doing so for a long time, and they forget what it's like to be in your shoes. They may not anticipate your questions, so you may have to take matters into your own hands. If something doesn't make sense, chances are it isn't because you missed something your teacher said, but because organic chemistry is complicated. Raise your hand!

6. Work in study groups. Ochem parties are more exciting than you think.

Organic chemistry is about problem solving, and sometimes it helps to talk things out with some friends. Add some soda and a pizza and you've got an ochem party!

5. Do problems, problems and more problems.

How do you get good at organic chemistry? Practice, practice, practice. Since many of the skills organic chemistry requires—talking in the nomenclature language, drawing complex structures and thinking through mechanisms—may be new to you, it is important to become very, very familiar with them.

4. Go to extra review sessions whenever you can.

Don't miss out on Supplemental Instruction, recitations, study sessions or any other opportunity for you to practice your newfound organic chemistry knowledge.

3. Use your model kits! You didn't donate $14 to the Chemistry Department for nothing.

It sometimes helps to see what your professor wrote on the blackboard in three dimensions. Or perhaps your professor uses a model kit routinely in class. Either way, models help you see what's actually going on.

2. Notecards—give 'em a shot!

So many reactions, so little time! Try writing the name of the reaction and the reagents on one side of the flashcard, and the reaction mechanism on the other side. It might even help to color code your cards—oxidation reactions in red, hydrogenation reactions in blue, etc. Carry them with you and, when you have a few spare minutes, flip through them to refresh your memory. Before quizzes and exams, look at the reagent side of the card, and see if you can write the complete mechanism on the other side.

1. Relax—you're ready to succeed!

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