

Study Hints for Organic Chemistry

Organic Chemistry is a hard course, a very hard course, one of the hardest courses that there is at any university at any level. It is an immense amount of work and it is very difficult to keep up. Very often there is an all-or-nothing phenomenon involved: students either put in the work required and do very well - perfect papers are not impossible in my courses - or they fail. You can not simply read the text once, skim over the lecture notes and work a few of the homework problems and consider yourself prepared. A good 8 - 10 hours per week, every week, relentlessly, without fail, is required. It is grueling, it is unfair, it is awful but it is possible to do well. Learning organic chemistry is a lot like learning a foreign language: the concepts are fairly simple but they require a lot of practice in order to develop fluency. You must begin working hard right from the first week. You can not wait until the first exam or first quiz to begin studying. There is simply too much material for anyone to absorb at the last minute. Countless numbers of students have tried; very few have succeeded.

The best way to acquire this fluency is through working the homework problems, not just once but several times. Students who do well, work them over and over again until they become familiar and easy. Study with paper and pencil. Practice drawing the chemical structures and writing the basic mechanisms over and over again. You do not have to be brilliant to do well in organic chemistry but you do have to be well organized, highly disciplined and self-motivated and you have to work very hard: these are exactly the skills required in most professions.

Though there is a lot of material to learn, do not try and simply memorize it. There are a few basic concepts - the underlying reaction mechanisms - that unify the material and make learning the individual examples much easier. Stick mainly to the lecture notes and pay particular attention to the homework problems presented during the recitation hour(s). The text is a good one but contains too much information for you to try and absorb all of it. The exams will be very much like the homework problems, emphasizing the major concepts, not the small details. I do expect you to be able to write the reaction mechanisms on the exams and to give rationales for the observed reactivity wherever possible.

Do try and organize a study group or find a study partner. This forces you to keep up with the homework problems and explaining something to someone else often helps to clarify it in your own mind.

Good luck and remember that if you can do well in organic chemistry you can do well in anything. Besides its own intrinsic beauty and its central importance as the basic chemistry of all life processes and living structures, the study of organic chemistry can hone and train your mind; there is some satisfaction in that!