Organic chemistry: you've heard about it, worried about it, and now your first test is just around the corner. "Orgo" as its called at Hopkins, the first major "weed out" course for pre-meds, draws groans from all who have taken it and strikes fear in those who have yet to experience the "thrill" of this class. But don't change to art history quite yet. Orgo doesn't have to be a nightmare. A few simple steps can help to greatly improve your grade, and get you over this first hurdle even though it may appear impossibly high.

I remember sitting in Dr. Lectka's introductory organic chemistry class last year as a freshman. Lectka's many Daily Jolt-worthy quotes and stories about grad students catching on fire lightened the mood of the class. We always anticipated the daily threats from Lectka to "blow us all up," and the many references to "backside attack," which never ceased to draw giggles. What I didn't realize in the beginning, and now looking back seems so clear, was that Lectka told us everything we needed to know for the tests in those lectures, and if you just pay attention you will have a huge leg-up on the tests.

The class started out easy enough, with orbitals and basic chemical bonding. I thought, "So when is this class going to get hard?" Well it definitely did get more difficult, but the major thing I realize now, in retrospect, is that the information we were expected to learn was not that complicated, it just comes very fast and you have to assimilate it quickly. It is very easy to fall behind in orgo and never catch up again.

Everyone says orgo is a memorization class. In some respects it is, but you really have to understand the mechanisms behind the equations and not just memorize them, because the reactions on the test will always have some twist that wasn't in the book. In theory, you could go into an orgo test without a single reaction memorized, and if you truly understood what the electrons were going to do, you could ace the test. The theories and mechanisms behind organic reactions are much more important to understand then the reactions themselves.

It is extremely important to study the material that is going to be presented in class before the professor goes over it. I know this is the same stuff the professors always say, but believe me, there is a reason they are tell you this, because it actually works. As much as it may seem sometimes, the professor is not actually out to punish the class for trying to be pre-meds, nor is there a "quota" of good grades they can give out.

Orgo has very little actual reading (compared to most humanities classes), and so it isn't going to kill you to read like 10 or 15 pages a night before class the next day. The lectures will make so much more sense when you have already read the material. For that matter, attending lecture is also extremely
important. If I have learned anything after completing orgo I and II, it's that the professors make tests based upon their lecture material, not only the book.

Take notes in class. Your notes themselves are not necessarily that important, I barely even looked at them outside of class, but the process of note taking forces you to think about what you are writing and helps to cement it into your mind. Take notes in outline form, as you read the chapters, this will help you organize the information and give you an overall mental picture of each chapter that you can call upon during an exam.

To be really prepared for the tests you need to study your lecture notes as well as the book. This may sound like a lot, but by attending lecture you can actually cut down on the total amount of studying you need to do because sometimes the book presents information that wasn't covered in lecture, and unless otherwise directed by the teacher, you don't need to worry about studying that material.

In addition, often the professor doesn't necessarily agree with all parts of the book, and will present a totally different way of solving a problem in class. It is important that you use their methods on the test and don't always defer to the book.

I don't want to imply that the book is useless, it very important. Every professor will consistently put questions directly out of the book on the test, and many of the other questions are based on questions from the book just with the numbers changed. The single best way you can prepare for orgo tests is to do the practice problems. I can't emphasize this enough. At first I thought, "What? This is homework that isn't turned in, Pssh! Whatever I'm not doing any extra work that I don't have to." But believe me, I learned quickly that the practice problems are the key after sitting in class the day after the first test and groaning as Lectka showed us problem after problem that was directly out of the assigned problem set.

Do the problems once, long before the test, then do them again and make sure you can answer them all without looking at the answer book. That study guide, with all the answers really is poison to your studying. Try to put it somewhere else while you do the problems and only look at it when you are done. Focus on the questions you couldn't solve and work away at them until you figure it out. This is the best form of learning and I promise you will remember those problems when they show up on the tests.

Now, I'm not going to lie and say that cramming never works, because I have seen some people who have pulled it off, but in the VAST majority of cases cramming only results in a bad grade. Its easy to quickly memorize a ton of reactions, but you can't cram the concepts that govern those reactions into your head the night before the test and most people will get tripped up when the reactions on the test are different then the ones they memorized.