

Preparing for Exams

Organic Chemistry II

1. Problems, Problems, Problems

Doing problems is the single most important thing you can do to prepare for exams. BUT, you have to do the problems right. Problems sets, reading and note review help with understanding content but do not prepare you for problem solving needed to perform well on exams.

CONTENT: Complete relevant problem sets and old exam questions ***as you go along***. Discover what content you understand thoroughly and what you need to work on. Seek out help in those areas you do not understand sooner rather than later.

PROCESS: Focus problem solving on ***HOW*** to do problems by following the guidelines laid out in the solutions for problem sets and old exam questions. Getting the right answer on an old exam question is not sufficient to do well on the final exam. You will need to know how to solve similar problems using the strategies for problem-solving that you develop in practice with old exam questions. Your exam/quiz questions will be different from previous year's exams, but the processes and strategies used to solve the problems will be the same, so learn how to do this.

2. Write everything out

Organic chemistry, especially reaction chemistry is visual and graphic. Drawing out structures, using arrows to show mechanisms, and breaking problems into shorter, simpler steps are all ways that help you to visualize concepts and develop problem-solving strategies that guide you to finding the best answer to a question. Be methodical, organized and neat. Number your scrap paper and the problems numbers as you work through the exam. Writing out steps on paper slows your thinking down and helps keep you focused. When you don't use paper to organize your strategy, it is easy to allow your thinking to become scattered that leads to confusion. Also, when you have the urge to change an answer on the exam, especially at the end of the exam time when you are tired, you will have a record of what your thought process was so you can review it before you arbitrarily change an answer at the last minute.

3. Make a reaction table

There are many reactions covered this semester and it's hard to keep it all straight. Create a reaction table that includes ALL of the starting materials, reagents, stereochemistry etc. for all of the reactions we covered and make sure you know how to use mechanisms for all of the reactions where mechanism was emphasized. Once you create the table, use it as part of your problem solving practice with old exams rather than reviewing it to memorize. By using it for problem solving, you will learn the reactions and other information in the context of applications, which is what you need to do on the exam.

4. Make the most out of your mistakes

Make the best out of the mistakes you made on each of the hourly exams and quizzes by reviewing along with the SOLUTIONS provided for each exam/quiz to identify where you went wrong and how to fix it. You can learn a lot from error you made. You can even copy the solutions step by step to re-create the problem-solving process. Once you have completed review of your exam or quiz, print out another version of the exam or quiz you ***did not*** take, white-out the answers and try taking the exam/quiz again, making sure you utilize the problem solving strategies outlined in the solutions. This is the BEST way to learn how to answer questions efficiently and correctly. Be honest with yourself about what you know and what you did not know. Forgive yourself for silly mistakes and move on...vowing not to make that mistake again.

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