Studying is a highly subjective term. Most of us differ in study habits, though how optimal our habits are for success in college is an important consideration. I believe there are six modes of studying that can be employed by students who want to achieve the greatest understanding of the course material:

**Studying before every lecture:** Spending about 15-30 minutes reviewing the sections to be covered will help prepare you for lecture. This can be a light skim, looking for new terms in the reading, trying the Sample Exercise problems, and trying to ascertain the main ideas of the sections. This study time could make a dramatic difference in how much information you will be able to absorb in lecture.

**Studying during lecture:** Lecture is an opportunity to interactively solve problems using the content of the course. In lecture, you should look to reinforce the important terms, problems, and concepts. Keep track of items that are not making sense so you can review these topics after class and/or in office hours.

**Studying after lecture:** You can help retain the information covered in class by spending about 20 minutes reviewing the covered sections, especially on the content you least understood in lecture. One way to see how well you understand the topics would be to do to the Practice Exercise problems that follow each Sample Exercise in our textbook. The easier these problems are, the better prepared you are!

**Online homework:** A big misconception some students have is thinking online homework is just busy work we give you for something to do. This could be further from the truth! Online homework contains problems I hope you will be able to solve using the concepts and ideas you have developed in the course. If you find you have to look up how to do most problems, then this is a sign that you lack a good understanding of the course material. Students with a strong understanding of the course material should find the homework to contain problem-solving exercises that can be solved using the information, terms, concepts, and general ideas learned in lecture and in the readings. Keep in mind the exams in the course will primarily test problem-solving skills using the course content.

**Studying for an exam:** There are several packets of old practice exam problems available on Carmen. Focus on the chapters and types of problems you most struggled. You should strive to rarely need to use your textbook, the Internet, or others for help when working these problems.

**Studying after an exam:** Always review your exam afterwards to learn from your mistakes. Chemistry, like most sciences and math classes, builds upon itself so it's imperative to not let a misconception early on get in the way of your future success!

**Don't fall behind!** The best way to succeed in physical and mathematical science courses is to stay caught up with the material. This can be accomplished with the above six modes of studying. You can probably get by, maybe even do really well, if you just use four or five of those tasks regularly. But, it will be next to impossible to succeed if you do a majority of your studying only in the 24-48 hours before each exam. If you can't always make it to class, spend more time reading and working problems. If you don't care to read, be extra attentive in lecture or attend office hours to ask extra questions. If you should ever find you are stuck or get lost in the many aspects of the course, ask questions and seek help!