



FUNDAMENTAL FOUNDATIONS

A PEER LED STUDY-BY-SUBJECT GUIDE

CHEMICAL PRINCIPLES

GETTING STARTED

"It is important to make sure that you not only understand the material in the course, but that you can apply it. After covering each unit, challenge yourself by taking a random selection of problems from the end of each chapter you covered in the unit, and see how you do in answering them."

John R., Premedical and Health Studies '14, peer tutor

In order to get a strong start in chemistry, it is imperative to read before each class and keep up with the assigned problems."

Jennifer E., PharmD '16, peer tutor

"Keep up with the readings and really study for the lab quizzes because they are a good indicator of how well the material is being absorbed."

Steve G., Pharmaceutical Sciences '14, peer tutor

ACTIVE LEARNING STRATEGIES

- Draw a timeline for the history of experiments or ideas.
- Make flash cards of key concepts and ideas and quiz yourself until they are clearly understood.
- Do the assigned problems after each class and answer all of the questions at the end of each chapter.
- Read each chapter before class so that your professor will reinforce your knowledge instead of teaching you the material for the first time.
- Make sure that you understand the method that you used to solve each chemistry problem.
- While observing certain phenomena, draw pictures, such as experiments or periodic table properties, so that you can visualize how and why they happen.
- Keep a list of the problems that you struggled with so that you can go back and redo those problems to make sure that you completely understand them.
- With the professor's permission, record and re-listen to lectures because the more you hear the information, the more you will remember it and understand it.
- Get together with some friends after class and discuss the material so that it sticks.
- Challenge yourself by taking a random selection of problems to test your problem-solving abilities.

TACKLING THE TEST

Get plenty of sleep before your exam so that your head is clear for calculations and definitions.

Underline or circle the most important parts of each question for clarity.

Cross off the answer choices that you know are wrong, and then look at the remaining answers.

If you don't know the answer to a question, circle it and go back to it. Other questions on the test may help you with the answer.

If possible, save 10 minutes at the end of the exam to double check your answers by stating the reason each of your answers is correct.

DO'S AND DON'TS

Do...

- Go to class, even if the benefits are not immediately obvious, because the more ways that you hear the information, the better you will master it.
- Keep on top of your work by completing all of the assigned readings and problems regularly.
- Find study strategies that work for you and then stick to them, but don't be afraid to try new techniques.
- Write down the questions that you don't understand, and then follow up with tutors and professors.
- Put in additional study time, even if you feel confident in your knowledge.
- Be open to learning and keep a positive attitude.

DON'T...

- Be afraid to ask questions or seek help from students, tutors and professors.
- Read without truly understanding the information, because chemistry involves concepts and math.
- Wait until the last week or weekend to study for an exam. If you have been actively engaged in the subject the whole time, it makes studying for the test that much easier.
- Adopt the "I'm bad at chemistry, so a C is awesome" mentality.
- Get stuck on the definitions of the material that you learned in high school. Focus on the definitions provided by your professors in class.
- Give up. Revising your study habits may help improve your performance throughout the course, so make sure you keep on trying until you find study habits that work for you.

MEMORY TIPS

- Study the 'big view' and the fine details for each concept because they *both* must be mastered.
- Understand the specifics of the periodic table.
- Focus on definitions, study guides and other course materials provided by the professor.
- Create flashcards and sort them into "Know and Do Not Know" piles.

FINISHING YOUR FOUNDATION

"Understand the concepts, not just the test questions. You need to really understand the why behind everything because this makes everything a lot easier." Steve G., Pharmaceutical Sciences '14, peer tutor

"Push through the course, and make it work. You have no reason to be intimidated." John R., Premedical and Health Studies '14, peer tutor

"The single most important thing you can do to succeed in this course is to keep up with the reading and assigned problems throughout the course. Chemistry takes time and practice and cannot be mastered quickly. Sometimes it can be frustrating, but stick with it and keep practicing and asking questions." Jennifer E., PharmD '16, peer tutor

This handout is a compilation of resources provided by peer tutors and academic support professionals. This information is meant to supplement recommended study techniques provided by course professors, peer tutors, the Math Center, the Writing Center, and the Academic Resource Center. It is not intended as a replacement for MCPHS resources, faculty and staff, class attendance, course syllabi, or course materials. For additional information, please contact the Academic Resource Center at 617.732.2860.