

How to study chemistry

Because college level chemistry exams demand more than memorization, you will have to change many of your study strategies.

Get help early. Do not wait until the day before the exam to seek Enhancement!

Get free tutoring! There are free tutors available in the Chemistry Learning Center (6th floor of the Chemistry Building) from 9:00 AM to 5:00 PM Monday through Friday. There are also free chemistry tutors offered at the Academic Center in Milledge Hall. Call 542-7575 to make an appointment. There are also undergraduate chemistry majors at the Help Desk of the Chemistry Learning Center from 9:00 AM to 9:00 PM Monday through Thursdays and 9:00 AM to 5:00 PM on Fridays who can help you when they are not busy with their other responsibilities.

Attend all classes and labs. This recommendation seems so simple and obvious, but students who cut class do not do well in chemistry.

Always complete the homework. Students who conscientiously do the homework assignments so they understand the concepts often earn two grades higher in the course.

Plan to read, review, and study each day rather than wait until the night before the exam to think about chemistry. Unlike some other courses in which you can "cram" and stay up all night to prepare for an exam, chemistry demands your daily attention.

Know that your exams in chemistry will be vastly different from those you took in high school. The exams are computerized and involve a variety of questions that cannot be asked with paper and pencil. Moreover, the multiple choice questions do not allow you to recognize or guess the right answer because several answers can be correct for one question. Hence, you will need to recall and "know" the chemistry concepts and formulas.

A Dozen Specific Strategies for Reading and Studying Chemistry :

1. Remember that reading 10 pages in a chemistry textbook is not the same as reading 10 pages of a history or psychology textbook. Scientific text is very dense because it contains formulas, graphs, illustrations, and difficult concepts. Hence, you will need to allot more time to read and think about your assignments. For example, it may take you 50 minutes to master 5 pages in a chemistry textbook.
2. To improve your concentration and remembering, break up your assignments into smaller tasks. For example, most students concentrate better when they read 5 pages in one sitting versus 20 pages.
3. Read actively and think about ideas. Avoid passive behaviors such as just highlighting your textbook. To improve your concentration and understanding of your assignments in chemistry, you should also summarize and annotate key ideas in the margins of your text.
4. When you read and annotate your textbook, ALWAYS summarize and explain the illustrations or formulas because these are as important as the words in the text.
5. As you read and study, identify what you know and what you don't know. Keep a list of your questions so you can seek out the answers. Never wait until the night before the exam to discover that you cannot solve a problem or do not understand a concept.
6. Take the time to review the lecture notes that are on the CD-ROM that comes with the lecture outline. Go through each slide and summarize the information in your notebook.
7. Immediately after class take the time to edit and review your lecture notes. If you discover concepts or ideas that make no sense to you or seem to be incomplete, compare your lecture notes to your textbook.
8. To prepare for the exam, take the time to solve a SIGNIFICANT number of problems. The more problems you solve, the better you will do on the exam. That means you should solve more than two problems for each equation or formula. Your textbook has many problems and sample problems are also available from the Chemistry Learning Center.
9. As you work problems make sure you are able to answer this question: WHAT KIND OF PROBLEM IS THIS? WHY? One way to test yourself to see if you can solve a variety of problems and know what kind of problems they are is to complete the problems in your textbook called "Mixed Exercises" and "Building Your Knowledge Exercises."

10. Find a study partner who is also in your chemistry class. Meet with that individual on a WEEKLY BASIS to explain concepts to each other. Make sure your study partner is a serious student. Many former students tell us that they learn a lot when they explain out loud the concepts to their study partner and allow their partner to quiz and interrogate them.

11. Practice solving and explaining problems out loud. Imagine that you are teaching someone the chemistry concepts. This type of practice places the concepts in your long-term memory.

12. After each exam, take the time to review it. One week after the exam is given, the test viewing program will be available in the Chemistry Learning Center. Simply click on the "View Exams" icon on the desktop. The program will ask you for your name, UGA ID#, test #, class #, and the session that you took the test (e.g. Wednesday at 8:00 AM). After you have answered these questions, the appropriate exam will appear on the screen. You can read each question and look at all of your attempts. After you have finished doing this, ask yourself these important questions:

(a) Did I miss any questions because I misread the item or the choices?

(b) Did I miss any questions because I did not fully read and consider all the choices?

(c) Did I miss any questions because I just did not know the concept? Do I need to study my class notes more? The textbook? Other?