The importance of taking chemistry early in your degree

Sometimes an explanation of purpose can motivate you. Chemistry is the heart and foundation of science and is used across all scientific and engineering disciplines. It is important to have a solid understanding of chemical processes in any STEM field, which is why it is a prerequisite course for various science and engineering courses.

How to prepare for the first day

It is important to be prepared on the first day of your General Chemistry course.

- Read the syllabus on Canvas
- Save important dates in your planner, calendar, task tracker, or homework app
- Do any assigned readings and practice problems listed on the course schedule
- Check your OSU email at least twice a day so you don’t miss an important class update
- Set your Canvas notifications to be delivered daily or instantly

Strategies for success from the Academic Success Center

Use your homework as a learning aid. Be sure to complete problems to understand them, not just to turn them in. This is a great way to prepare for the exams a little at a time.

Make a reference sheet. This could be a list of key information about each topic. Even though a note sheet isn’t allowed for exams, this tool is a great resource for doing homework and studying for the exams. Write down concepts, terms, variables, and formulas.

Attend class as much as you can. Your professor may reveal some key info about the exams and their teaching style offers a new way to understand the concepts. In-class participation points make for a great grade boost!

Use practice tests to study. These can help you figure out which concepts will be on the exam and which of them you need to work on. Go over them with your peers to really nail the topics.

Visit your professor or teaching assistant’s office hours. Ask questions and clarify concepts there and in recitation. For more specific info about how to improve your study techniques, check out the Academic Success Center and talk to an Academic Coach.

Critical concepts for understanding general chemistry

Chemistry relies heavily on mathematical analysis to solve problems. This is why math is a prerequisite course for all introductory chemistry courses. Try Khan Academy or The Organic Chemistry Tutor to review the following concepts critical to General Chemistry:

- Scientific notation
- Significant figures
- Dimensional analysis
- Properties of exponents and logarithms
- The scientific method

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Get the maximum yield out of General Chemistry

» Utilize the free resources offered. Don’t wait till you’re struggling. A lot of concepts in chemistry are interconnected and require an understanding of the basic ideas. See the “where to find help” section for places to get help with chemistry.

» Make a study plan at the beginning of the term. For example, you might plan to spend one hour on chemistry readings every Sunday, Tuesday and Thursday. Know that this strategy might not work for you. Everyone’s approach is different. That’s okay!

» Prepare for online learning the same way you would for classes in person. Find a quiet study area, eat before class, take notes, listen, and learn! It’s easy to get distracted when you’re at home and staring at a screen for a long time. Consider a blue light filter or blue light filter glasses! Take breaks, set a study schedule, and avoid distractions during online classes.

» Form study groups for extra help. Study groups are a great way to learn information in a different way. The first days of class are great chances to connect with peers. If you’re struggling to make your own group, try Supplemental Instruction Tables (see the “where to find help section for more info).

» Do practice problems throughout the term to avoid cramming before an exam. Work with friends to make submitting answers less scary! Practice the material after each lecture to retain information. Feel free to do textbook problems too.

» Do practice exams a week before the exam. This gives you time to get help if you’re struggling. Practice exams help you see what will be on the test and which concepts need more review.

Where to find help

Don’t wait to ask for help if you’re having a hard time understanding the concepts taught in class! Here are some places to get extra help.

» Professor and TA office hours - Check the syllabus for their hours and if you can’t make then, reach out via email. Try asking them to explain concepts that are unclear!

» The Mole Hole - Get it? Cause 6.022x10²³? Anyway, in the remote world, they are using Slack to assist students. Many of your favorite TA’s can be found there as they staff it to help answer any chemistry question you may have.

» General Chemistry online Slack workspace - A great place to meet classmates, ask questions, and form study groups. It’s the same workspace as the Mole Hole!

» Supplemental Instruction Tables - Overcome that social awkwardness during week 1 with small, organised study groups.

Advice from current OSU students in STEM

“Don’t be afraid of making mistakes and asking for help!”

“Stay on top of the readings and homework so you don’t fall behind.”

“Write out a condensed note sheet while taking or reviewing your notes. It helped me pull out important information and gave me an extra chance to review. It also saved me a lot of time when studying right before an exam.”

“Take advantage of all of the extra resources around campus. It is very helpful to do practice tests, score yourself, and take the problems you got wrong to the Mole Hole so you can learn how to approach and solve the problem.”

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