

Why Is Chemistry So Hard? (<http://chemistry.about.com>)

Chemistry has a reputation as a hard class and difficult science to master. Here's a look at what makes chemistry so hard.

1. Chemistry Uses Math

You have to be comfortable with math up through algebra to understand and work chemistry problems. Geometry comes in handy too. Part of the reason many people find chemistry so daunting is because they are learning (or re-learning) math at the same time they are learning chemistry concepts. If you get stuck on unit conversions, for example, it's easy to get behind.

2. Chemistry Isn't Just in the Classroom

One common complaint about chemistry is that it counts for the same credit hours as any other class, but requires a lot more from you both in class and outside it. You've got homework, plus a lab, problems and a lab write-up to do outside of class, and maybe a pre-lab too. That's a big time commitment! While that may not make chemistry more difficult, it leads to burn-out a lot earlier than with some studies. You've got less free time to wrap your head around the material on your own terms.

3. Chemistry Has Its Own Language

You can't understand chemistry until you understand the vocabulary. There are 118 elements to learn, a lot of new words, and the entire system of writing chemical equations, which is its own special language. There is more to chemistry than learning the concepts. You have to learn how to interpret and communicate the way chemistry is described.

4. It's Hard Because of the Scale

Chemistry is a vast discipline. You don't just learn basics and build on them, but switch gears into new territory fairly often. Some concepts you learn and build on, but there is always something new to throw into the mix. Simply put, there is a lot to learn and only a limited time to get it into your brain. Some memorization is required, but mostly you need to think. If you're not used to working through how something works, flexing your mind can take effort.

5. It's Hard Because You Think It's Hard

Another reason chemistry is hard is because you've been told it's hard. If you think something is difficult, you're setting yourself up to fulfill that expectation. The solution is to truly believe *you can learn chemistry!* Achieve this by breaking up study time into manageable sessions, don't fall behind, and take notes during lectures, lab, and during your reading. Don't psych yourself out and don't give up as soon as the going gets tough.

Easy Isn't Always Better

Even though it is challenging, chemistry is worthwhile, useful, and possible to master. What other science explains so much of the everyday world around you? You may need to learn new study skills and change the way you organize your time, but anyone with the will to learn chemistry can do so. As you succeed, you'll gain a deep sense of accomplishment.