

Recitation introduction for the Chemistry Student: What can I expect?

First of all, “recitation” is NOT the best term to describe what we hope will happen during this hour each week. A quick Google search brings up these definitions of *recitation*:

- Written matter that is recited from memory
- A public instance of reciting or repeating (from memory) something prepared in advance; "the program included songs and recitations of well-loved poems"
- Course session: a regularly scheduled session as part of a course of study

Okay, the third definition is suitable. But, **learning** something is different from memorizing something. You need to be able to *apply* what you know in different situations—even those that are unfamiliar to you. You need to be able to *explain your reasoning* in a way that other people understand. Knowledge does you little good if it’s stuck inside your head and only you can make sense of it. And, you often figure out what pieces are “missing” or where you are still confused when you have to explain something to someone else.

There is ample evidence that group work leads to better understanding of important concepts. Your TA and LA will structure this time so that you are working with other students on problems and concepts that we know are (a) important and/or (b) difficult for students.

It’s probable that you won’t make it through the entire activity during recitation. This kind of learning takes more time, but has shown to be more effective than simply “covering” all possible topics, which is often done through lecturing. We encourage you to continue working through the recitation materials outside of recitation. The TA’s and LA’s are happy to work with you during help room hours; we also encourage you to work with your fellow students.

We have evidence from previous semesters that students have difficulty visualizing what’s happening at the atomic and molecular level (despite all the great textbook figures). We also know that you will make longer-lasting connections if you can relate chemistry to the real world and if you can see the connection between problem-solving and the underlying chemistry concepts. Thus, these materials will emphasize:

- Visualizing matter and its interactions / reactions at the molecular level
- Developing problem-solving skills and relating results of a calculation to the underlying chemistry concepts (making sense of your answer)
- Whenever possible, linking chemistry to real-world scenarios

In order to facilitate group work, one graduate Teaching Assistant and one undergraduate Learning Assistant is assigned to each recitation section. We want to know “what works” and what “doesn’t work,” both in terms of the overall structure and in terms of how students are using the recitation materials. At some point, we will likely ask students to volunteer to be videotaped while working on the recitation materials and/or just to provide their own feedback in an interview setting.