Teaching Statement
By: Anna Powers

Teaching chemistry can be challenging due to the complexity of the subject matter. To diffuse this, I use encouragement and commend my students on their achievement in the course, whether it is as small as correctly naming a compound. I find that a positive atmosphere turns a class into a discussion because it removes the uneasiness students have about asking questions. In my class, students often volunteer to explain a problem on the board in front of about twenty-five people. They are comfortable in doing this because they know that I will say something positive, even if they get the question wrong. Students have told me that “chemistry is hard but our recitation makes it easy” and they like coming to class because “learning is fun.” I also make review sheets and extra problems for every class that explain difficult concepts. My students have told me these are of an immense help. However, sometimes a review sheet is not enough to help a student.

One semester I had a student who always came late to every recitation and was struggling to grasp the basics, such as unit conversions. Early in the semester, I kindly asked the student why he came late. The student explained that he is taking the class during his lunch break from work and that chemistry is very difficult for him. I understood that he could fall behind, and thus, I offered to set up extra meetings during the week to help him learn. In a couple of meetings, he was able to do all the unit conversions he struggled with and, in time, made a significant improvement. I was very proud that I reached out to him. I learned that students might not ask for help, so it important to be proactive in offering support and mentoring. But, to see a good result, mentoring has to be combined with an ability to explain complex ideas in simple ways.

In the Fall of 2009, I taught a General Chemistry I recitation, and although all my students struggled in the beginning, everyone got above a 90 on their final exam. I was very proud of this achievement. I was successful because I taught my students a process of breaking down complicated problems into manageable parts. While explaining a question, I always labeled the known and unknown quantities, so it was clear what we had and we needed to do to get an answer. I involved students in this process by asking questions and used simple terms to explain complex theories. I also explained how these problems relate to the everyday world by giving examples from my own research. This generated significant student interest in chemistry and numerous students were inspired to go on to major in chemistry. As a matter of fact, I am currently mentoring a student who is considering graduate studies in Chemistry. I still keep in touch with many students because I believe that mentoring does not have to stop when the semester is over.