## **Statement of Teaching Philosophy**

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I am committed to undergraduate chemical education because I have personally seen how, when done successfully, it can positively transform the lives of students. So how does one teach with such effect? While there is certainly no one correct answer, I believe there are 4 key qualities that effective teachers must possess: passion, experience, approachability, and mentorship.

## "Education is not the filling of a pail, but the lighting of a fire!" Yeats

When I first began my collegiate teaching career 18 years ago, I decided to put this quote on the signature line of all of my email correspondence to remind myself that the primary goal of teaching is to inspire a thirst for learning. This quote, in many ways, summarizes my teaching philosophy because it highlights one of the most important qualities displayed by effective teachers — passion. I am personally very passionate about learning and want to always inspire this passion in my students. One specific way I do this is to provide opportunities for students to organize the material they are learning and teach it to others. This approach is highly effective because it immediately engages a student's creativity with a particular subject and typically brings about a desire to learn more deeply.

Beyond passion, a second quality of effective teachers is experience. Experience comes from one's own former teachers and mentors, the experience gained through one's own teaching practice, and a commitment to lifelong learning and professional development. I was fortunate to have several educational mentors that brought about a transformation in my own way of learning, and when I am fortunate enough to be in front of a classroom, I have the opportunity to pass on this collective knowledge. During the course of 18 years of teaching undergraduates, studying alternative teaching methods, and experiencing both success and failure in the classroom, I have developed several strategies that work well with most students. The following is a short list of such strategies that my experience has shown to be useful for successful teaching at the undergraduate level.

- Provide a solid foundation of knowledge so that critical thinking can occur.
- Establish and maintain consistently high expectations.
- Provide an organized framework for learning.
- Start with the ending, to provide a broad context for detailed learning.
- Encourage the physical act of writing/drawing, it paves the way to learning.
- Provide laboratory experiences that enhance lecture material.
- Utilize advanced instrumentation with students to encourage critical thinking.
- Provide positive and encouraging feedback when students get things wrong.
- Provide opportunities for students to organize information and teach it to others.
- Recognize that learning and mentoring go hand-in-hand.

Having said this, a great teacher is also a life-long learner. Therefore, I continually seek further experiences that allow me to remain current in my knowledge of chemistry and of effective teaching practices in the chemical discipline.

The interactions that occur with students outside the classroom or lab are critically important for student learning and require the third key quality all effective teachers possess, approachability. When students meet a professor for the first time the experience can often be intimidating, thus limiting their desire to have further interactions. My fist goal when meeting students is to make myself approachable. To do this, I explain my recognition that everyone has a different learning style and therefore may require alternate approaches, methods, accommodations, or tools for successful learning. I ask students to think of me more as a guide or partner in learning, and I let them know that I offer numerous ways to access and learn material outside of the classroom such as scanned copies of lecture notes, summary Power Point lectures posted online, additional homework problems posted online (with answers if requested), and access to my time both in and out of normally scheduled office hours. I make sure to inform students about support services such as tutors or SI/SLA instructors that can give them additional guidance when needed. I am always willing to work with students that have unique situations such as learning disabilities, approved schedule conflicts, and emergencies. I have come to recognize that being approachable and making small adjustments or accommodations often increases a student's level of trust in me and brings about improvements in learning.

Finally, teachers are mentors, and this is the most gratifying part of being an educator. In order to "light a fire" within my students, I help them to see their future path as a role-model and mentor. In the chemical sciences this often equates to being a research mentor, collaborator, and advisor. Teaching students how to ask great questions and then figuring out the experiments necessary to answer those questions can be life changing for all parties involved. Nothing gets a student more excited about learning than a project that they become personally invested and interested in. Teachers need to provide these types of experiences as early and as often as possible. Having done this for the last 18 years, I have learned that effective teaching, research, and collaboration are NOT mutually exclusive, but rather self-complimentary.

I look forward to discussing my teaching philosophy further with the search committee, and having the opportunity to learn additional ways that I can improve my own approach to teaching.