

Ji Li

Teaching Statement

Teaching Experience. I have been a teaching assistant for 5 years at both the University of Connecticut and Ohio University. I have been fully responsible for some courses and teaching discussion sections for some of the others. I have enjoyed teaching a wide range of courses.

During two consecutive summers, I taught a class called *Problem Solving*, which aimed to enhance students' problem solving skills. Students learned problem solving strategies by working on questions and on group projects. Problems varied from algebra questions to games from which they gain insightful mathematical interpretations through playing and studying winning strategies. I designed lectures, led discussions, presented solutions, and created and graded homework. I particularly enjoyed the flexibility of choosing intriguing topics to teach. This summer teaching really offered me a unique experience.

My other additional experience includes tutoring and mentoring. I once tutored in the Center for Academic programs at UConn for high-potential students who come from under-represented ethnic or economic backgrounds. As an international teaching assistant, I served as a mentor in the International Teaching Assistant Orientation at the University in 2010 and 2011, where I shared my teaching experience with new international teaching assistants to help them get familiar with the U.S. teaching environment.

Teaching Philosophy. Teaching mathematics, to me, is presenting ideas, rather than just transferring mathematical content. This philosophy shapes my teaching style in almost every detailed aspect. Especially when I introduce a definition, I also discuss the intuition that inspired the definition; when I give a formula, I always explain the logic behind the formula; when I present a theorem, I would like to prove it or give references, and try to demonstrate its significance in some way.

Mathematics is fascinating in its own right, so I always try to share that excitement with students. I always try my best to make sure that I teach in a clear manner. We should let mathematics work its magic.

One of the most impressive feedback from my students' evaluation is: "He cares." I am truly happy about it, since it reflects the relationship I have been trying to build with my students. During lectures, I try to create interactions with students by asking questions. After lectures, I encourage them to stop by my office. More often than not, mathematics reflects simplicity and elegance, which can make problem solving easier and joyful. I make an effort to convey to students this simplicity and elegance during teaching.

To be a better teacher. I strive to improve my mathematical teaching in at least two important aspects: philosophy and skills, which rely upon both experience and introspection.

Teaching experience is like a mirror that shows points of view which have not previously been displayed. This frequently makes me reconsider my teaching philosophy, and enhance my teaching skills. In the beginning of my teaching in the U.S., I had little knowledge of the secondary education system here, but I have learned a lot about it from my students. Feedback from students tells me how to be more efficient in teaching. The feedback includes their instant response during lectures, which pushes me to be more organized and stimulating. It also includes feedback out of class, especially from tests, which tells me their progress and whether these tests are well-written.

Experience is not everything. I expect there is a limit if a math instructor relies only on experience to improve. Mathematics deserves deep comprehension. In order to present it well, I keep examining mathematics through my own study. This constantly shapes my teaching philosophy as well as my understanding of the learning process, which is inherently related to teaching skills. It is a tough task to be a well-qualified teacher, but I will never stop trying to be a better one.