Teaching Statement
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Teacher, a person who takes passing knowledge, presenting techniques and solving puzzles as one’s career.
— Han, Yu (802 BC)

This is the quote I put on my teaching pages. Teachers are the people I respect most for my professional growth. Being a successful teacher is a goal I am willing to devote myself to.

1. Teaching experiences

1.1 Teach as a Spartan (Michigan State University)

I taught my first class at Michigan State University and after that I gradually fell in love with teaching. I changed my career plan from industry to academia, where teaching is a must. With time, my enthusiasm, patience and care paid off. During my seven years teaching various math courses from college algebra to calculus, my evaluation is often one of the best among my peers. In 2006-2007, I received an honorable mention of the senior graduate teaching assistant award in the math department. Success and recognition in teaching make it more enjoyable, and my love in teaching soars.

I also worked as an applied calculus course coordinator with responsibility of giving exams and coordinating other TAs’ teaching. In addition, I worked as a shift supervisor of MSU math learning center, coordinating all math tutors to provide timely and efficient math help. These indirect but more management-oriented teaching experiences improved my teaching skills from a different perspective.

1.2 Teach as a Wolverine (University of Michigan)

After obtaining my PhD, I joined University of Michigan as a postdoctoral assistant professor. At Michigan, I taught calculus, honor calculus, and more advanced math courses such as numerical analysis for senior undergraduate and graduate students. My teaching experiences at Michigan are inspired by the enthusiasm and dedication of some senior faculty.

Karen Rhea, director of the Introductory Calculus program, supervised my first teaching assignment, Calculus I. This is the course I have taught many times but the way Karen did was so different and effective. She assigned online homework after each class, which can be automatically graded as needed; she set up ”email instructor” button near each problem and guaranteed students timely help from instructors; she run midterm exam three times and organized all the instructors to grade uniformly until 2:00am to make sure the grading is fair and immediate; she hold a weekly instructors’ meeting to discuss class planning ... Checking students’ understanding proves the effectiveness of Karen’s approach. They really knew the material and were at the same page with me always. This experience makes me understand how a rigorous, systematic, and well-designed course plan could effectively deliver basic math techniques to students.

Robert Krasny, Arthur F. Thurnau Professor, is my academic mentor at Michigan. We taught numerical analysis together and he showed me how to prepare a course from syllabus, lecture notes, computer-related work, homework, to exams. Careful and comprehensive preparation is the key to
success. He is an extremely busy person but he is always generous about giving students time. He replied to students’ emails timely, answered their questions patiently and even took the time to help them debug the code. I followed what he has done and I succeeded in my first time teaching numerical analysis. Many students wrote letters to me at the end of the semester for appreciation and I could also see that from their nice comments on evaluation.

After nearly 10 years teaching, I believe I am a successful teacher with effective strategies. All the experiences I have gained at teaching contribute the following teaching philosophy.

2. Teaching philosophy

*Teaching and research both deserve serious attention and effort, and they are closely linked.* Teaching requires face-to-face communication with students, making it a scientific work and a social activity. Teaching also helps to clarify and define ideas of the teacher herself. In addition, teaching helps to communicate more efficiently with people who are not mathematician, which is particularly important as our work is often interdisciplinary.

*I will not only teach students mathematics but inspire them as well.* Being an instructor, I am not satisfied at simply delivering course material. More importantly, I try to improve students’ ability and interest to learn. For example, I often give historical background and interesting stories. I also check students’ majors and give them related examples. Sometimes, I ask their expert advice on questions from their specialty. Students feel more confident by teaching me, and I learn from them too.

*I will be a very patient instructor and always encourage students.* Some students will have difficulties in understanding the material. I would explain things to them as many times as they need. These students need the help most, and patience from their instructor will sustain them in finishing their studies. Encouragement is also critical. When students realize they are making progress, accomplishing tasks, and being recognized, they eager to learn. I often show my encouragement by congratulating their progresses after tests, either directly talking to them or writing a note on their paper.

*I will be happy, humorous, and passionate in teaching.* Every day, I have new experience and my mood varies. However, before I enter the classroom, I usually will stop at the door for a second and try to enter with smiles. Students come to my class with their trust and they deserve a happy heart. Keeping this in mind, my sense of humor will come out naturally, which is my students’ favorite part.

*I will always be well prepared.* Good preparation brings an effective, smooth and organized lecture, which is the key to keep students focused. In addition, we need to plan how to help students understand the material from their perspective, which requires careful preparation. By projecting myself into their shoes, I lead them to understand difficult material.

3. Summary

There is a Chinese saying as "Tao Li Man Tian Xia", which can be directly interpreted as "peaches and plums are everywhere". Here peaches and plums resemble students who grow up and become successful in different areas around the world, and teachers are those who plant the peach and plum trees and look after them carefully. I am looking forward to starting teaching in your campus, planting peach and plum trees with my heart. After years, I will see "peach and plums are everywhere".