

TEACHING STATEMENT

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Teaching is the most important thing I do. It is my opportunity to directly affect the lives of hundreds of people every year. I feel lucky to be entrusted with such a great responsibility, and so I constantly strive to improve as a teacher and mentor. My success as a teacher has come from the respect I show my students, from the energy I bring to the classroom, and from my willingness to revise my teaching practices.

Great teaching starts with respect. On the first day of class, I hand out a “Student Info Sheet” where students can tell me the name they prefer to be called, their concerns about the class, and something about themselves. This helps me to immediately develop a personal connection with my students. In class, I encourage students to ask questions and I answer them without judgement. This is especially important in a class like Calculus, where many students come in with a deep fear of math. I respect my students’ time by making good use of our time together and by assigning meaningful work outside of class. Finally, I listen to my students’ struggles with sympathy, and I make accommodations when appropriate.

In class, I don’t just want to teach my students the definition of a derivative – I want to show them the joy of mathematics! I frequently use humor and amusing examples in class to keep students’ attention and to aid their memory. One of my favorite examples in Calculus is playing “Guess My Number” as an introduction to the Intermediate Value Theorem. I tell the class that I have written down a number between 1 and 100 on a piece of paper, and their job is to guess it. With every guess, I tell them whether they are too high or too low. What I don’t tell them is that the number I write down is not a whole number – for example, one semester I wrote down 10π . This always leads to a great moment in class when they discover that 31 is too low but 32 is too high. We continue to play for a while, and this prompts a whole discussion about successive approximation of real numbers, which ties in to the preceding material about limits. Later that day, I show them how finding the root of an equation using the Intermediate Value Theorem is functionally the same as playing Guess My Number. Students respond very positively to my enthusiasm in the classroom, often mentioning it in my teaching evaluations as an aspect of the class that they loved.

I frequently reassess and revise my teaching practices. I keep up with education research, and I am willing to experiment with new techniques. Recently, I have been trying a partially flipped classroom. Before most classes, students watch a 15-minute

video and answer a couple of questions in a pre-class quiz. This allows me to move more of the information transfer to these videos, so that I can spend more time on active learning during our time together. I learned from last semester that pre-class videos with no pre-class assignments led to almost no-one watching the videos by the middle of the semester. The addition of pre-class quizzes has greatly increased the number of students who are regularly watching the videos. Throughout each semester, I keep a “lab notebook” of what is working well and what challenges I’ve faced. I refer to these notes when planning my next semester so that I can make choices that will provide my students with the best possible learning experience.

My success as a teacher is evident in my teaching evaluations, the way students talk about me, and the honors I have received. Students consistently rate my effectiveness at 4.5/5 or higher, praising my approachability and my ability to break down difficult concepts and present them in a clear way. I often hear from new students that I came highly recommended from their friends, and the waiting lists for my classes are always full of people who are hoping to get into my section. I have received several honors for my teaching, including the Face-to-Face Innovation Teaching Award as part of the University of Massachusetts Boston Conference on Teaching, Learning, and Technology; an Active Learning Fellowship; and a STEM Educational Excellence Fellowship. These fellowships have helped me to become part of an active community of educators who are passionate about finding ways to improve our teaching.

I am grateful to have the opportunity to use my gift and passion for teaching. Through respect, enthusiasm, and frequent revision of my methods, I have found great success as a teacher. I look forward to continuing to share the beauty of mathematics with my students, and to finding new ways to engage and enrich them!