

TEACHING STATEMENT

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1. PHILOSOPHY

I was fortunate enough as an undergraduate to take math classes from professors who are very talented teachers. They are all capable of capturing and keeping their students' attentions by showing their love and enthusiasm for mathematics. These professors inspired me to become a professor. As a freshman in college, I knew that I wanted to help others find a new or deeper appreciation for math.

Throughout graduate school, I have tried to keep this ultimate goal in mind. A good teacher should always question her own effectiveness as a lecturer. When I attend a class or seminar, I take mental notes on what I like and dislike about the speaker's presentation style. I then take these notes with me as I prepare my next lecture.

When my most recent class was asked to rate my effectiveness, I received a score of 2.57 on a scale from 1 to 7, 1 being the best. Since this is not a perfect score, I am continually trying to improve my effectiveness as a lecturer and looking for ways to rate myself. One way to measure effectiveness is to ask questions in class. If no one can answer my questions, then I know that I am going through the material too quickly or in a way that is hard to understand.

Another method of testing myself is giving exams. I write tests expecting students who do all of their homework to make at least a C, and I would adjust my teaching style accordingly if this did not happen. This has never occurred, and in fact most of my students exceed my expectations in demonstrating that they understand the course material.

My favorite way to test myself is to hold office hours. The questions students ask during my office hours help me gauge how the course is going. I am proud of the fact that students feel comfortable coming to my office, and in the final course evaluations one student wrote, "she is always approachable and helpful, and offers a great deal of encouragement." Office hours are also a time for me to show the students my love for math. I am often enthusiastic in class, but with a smaller crowd meeting in my office I can really show my excitement about some of the problems I assigned for homework. One student wrote, "she really knows her math and has a passion for the subject." I am happy that my students can tell that I have a 'passion for the subject,' especially since learning is more enjoyable and often more effective when the teacher is having fun.

2. EXPERIENCE

As a graduate student at Rice University, I taught two traditional courses, Calculus II and Linear Algebra. For each course I was responsible for all lectures and for creating my own syllabus, homework assignments, and tests.

As a member of the Rice math department's VIGRE program, I taught two semesters of a one hour Computational Algebraic Geometry Course and was the graduate student advisor for an undergraduate REU. The Computational Algebraic Geometry course was a class where I was allowed to teach whatever and however I wanted. The first semester I taught it, I held our meetings in a computer lab. There I would lecture for thirty minutes, and then we would explore Algebraic Geometry using the help of Macaulay II. The second semester I taught this course, I decided to go back to a traditional classroom. I would lecture during the last half of the class and during the first half had the students present homework based on the previous week's lecture. Since I was the creator of these courses, I was responsible for writing my own homework and in class assignments. I also had each student give a thirty minute presentation on special topics which I helped them choose.

I have been a teaching assistant in undergraduate courses ranging from Calculus to Elementary Number Theory. Most recently I was the teaching assistant for a graduate course in Elliptic curves and Modular forms. My responsibilities as a TA included holding recitation sessions and grading tests.

I also attended six semesters of the math department's Graduate Teaching Seminar where we practiced giving lectures, writing exams, and discussed different teaching philosophies.