

TEACHING STATEMENT

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When I reflect about my attitude towards teaching, I see myself in third grade teaching our illiterate neighbor the alphabet. That red-haired eight year old was not only fighting illiteracy, but in the process discovered teaching as an effective way of learning. I view teaching as an act of explaining and questioning that leads to self-growth. I am a relentless believer in the power of education to transform individuals and societies. Accordingly, I share my love of learning in diverse forums such as the Harvard Undergraduate Math Club, the Hampshire College Summer Math Camp or the Princeton mentoring program for underprivileged high school students.

Over the last nine years, my teaching assignments have put me in contact with a diverse group of students. I tutored students ranging from fellow Princeton undergraduates to mid-career continuing education students. I taught my own sections of Calculus with a strong pre-calculus component (Math Xb) and Linear Algebra for non-majors (Math 21b) at Harvard and conducted recitations for Calculus (18.01) and Differential Equations (18.03) at M.I.T.. While at M.I.T., I designed and taught my own courses Introduction to Number Theory (18.781), Analysis I (18.100B) and several advanced graduate classes in algebraic geometry. Each of these courses presented different challenges and forced me to employ a wide variety of pedagogical approaches ranging from group work to discussions followed by mini-lectures. However, no matter what the course or the approach, the secret to being a good teacher is to be friendly, available and enthusiastic about the subject matter. When I teach, I always include a beautiful example. I point out the art and the genius in mathematical thought. Students appreciate the course more when I convey my enthusiasm about the subject.

In courses, we often have to transmit a large body of knowledge to students. If students explore the material on their own, they are more likely to retain it. I use homework as a means for students to explore material not yet covered in lecture. In class, I involve students in the discussion by asking them questions. It is important to create a relaxed and friendly class environment. I let my students know that I deeply care about them and their learning process. I respect my students and expect them to respect each other. In such an environment, students willingly participate. I give the students clear guide lines about what is expected of them, but I do not shy away from challenging them further. Outside of class, I try to be available for those students who need more help or want to explore topics beyond what the course offers.

A good teacher should constantly evaluate their teaching critically. In teacher training programs at Harvard and M.I.T., I gave video-taped lectures and discussed them with teaching experts. This allowed me to fine tune many aspects of my teaching such as blackboard technique. Students are the most critical mirror of our teaching. With their facial expressions, their written work and their course evaluations students give invaluable feedback. When I see a blank stare in class, I rephrase my statement. It is my duty as a teacher to try until I see the light of understanding in my students' eyes. In the years ahead, I look forward to learning from students as I strive to further spread the light of understanding.