

## TEACHING STATEMENT

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### INTRODUCTION

I have been a teaching assistant (TA) of mathematics at the University of Southern California for more than three years. I have taught calculus for business and engineering majors, algebra and number theory for math majors, and algebra for graduate students. Each situation brought me a new perspective and each class was an important part of my teaching career.

### TEACHING EXPERIENCE

As a teaching assistant, I was responsible for teaching recitation sections under a lead instructor. Being a TA, I had an opportunity to observe the course process closely. I saw how the professors taught and adjusted the materials, and how the students learned and reacted.

As a TA, I have taught recitation sections for Fundamental Principles of the Calculus (Math 118), Calculus I, II, III (Math 125, Math 126, Math 226) and Fundamental Concepts of Modern Algebra (Math 410). In addition to conducting the recitation sections, I held office hours and graded homework assignments, quizzes and midterms. Besides that, I have been a recitation instructor and grader for the undergraduate course Theory of Numbers (Math 430) and graduate level course Algebra (Math 510). Grading the homework assignments for Algebra was a great opportunity to learn how to evaluate the graduate students' work.

### TEACHING PHILOSOPHY

I think that the main goal of a teacher is to convince students that the subject is not as hard as they think it is. Unfortunately most of the students have a fear about mathematics. Definitions and theorems seem so abstract that they have difficulty getting the ideas. I try to convince the students that they can solve the problems. I believe students benefit by talking one to another about their math problems and encourage my students to study together and to help each other. To get students to discuss mathematics, I like to assign group work in class and then have each group present their solutions. I think that it makes learning much easier for students.

Motivating students can be a very challenging subject. Many of the students will be taking mathematical classes simply to satisfy their degree requirements. Therefore, extra preparation is needed to keep the students motivated in the subject matter. I believe that a confident teacher with a well-prepared lesson plan can make the class material easily accessible and more interesting for students. In order to keep my students interested, I have included real world problems and applications of current topics. I find that examples from applications – if presented clearly – help students learn, both by enhancing their cognition and by increasing their motivation.

In my class, students are free to ask questions. I prefer answering all the questions regarding the lecture material before I start doing what I prepared, so that they can learn what they want from

my class. In addition, when I solve the problems in my class, my students can ask questions about my solutions and propose alternative ways of solving the problems.

I want every one of the students to grow as a critical thinker and problem solver. At the beginning of each course, I think about the students' background and what they might need or want from the course. I do recognize that in any class, there are students with different mathematical skills. I like to offer the top students in the class challenging problems to think about and provide an extra assistance to the students who are struggling.

I am friendly, patient, enthusiastic and want to see my students succeed. I try to be light-hearted in class and out, illustrating fun points of mathematics and allowing for humor at times. Students that share the teacher's enthusiasm are more likely to pay attention and less likely to be turned off by the class.

I love teaching mathematics and working with students. Based on my teaching experience, I believe in my strength in teaching and that I can present a clear analysis of course material and show the deep connection between different subjects. Altogether, my approach to teaching mathematics is geared towards stimulating thought. The students appreciate it even if it means they work harder, and it certainly made my teaching experience more enjoyable.