

**Teaching Statement**  
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My teaching experience is distinct from that of most doctoral candidates because I am involved in education of two separate groups of students: one class for seniors that applies principles of research to solve real-life problems from industry and another class for freshmen that focuses on basic algebra and trigonometry. For the senior class, called the Math 4020 Capstone Course, I worked for five semesters, and I had a major responsibility of teaching, organizing and grading the course as an assistant. I taught two semesters of Math 1021 College Algebra and one semester of Math 1022 Trigonometry and I had a sole responsibility for teaching, grading and planning the course as an instructor.

The Capstone Course at LSU is a unique opportunity for undergraduate math majors to utilize all the mathematics that they learned and apply it to a “real life” project. Students in 4020 are driven by genuine scientific curiosity and in many cases they see this course as the “capstone” to their undergraduate studies and a stepping stone to a graduate career. Thus, my role as an assistant in this course affects my students’ academic lives very directly, which itself is a challenge for a good educator.

I, too, have been challenged in the teaching of this course and some of the more intriguing projects from our clients have become my own research interests. Occasionally I profile modified elements from my research (refer to my research statement for details) to my students and look for contributions and new perspectives.

Students in 4020 work in teams and my role is that of a team leader who helps them in scientific obstacles in a Socratic manner. Typically, projects require basic undergraduate knowledge of linear algebra and analysis. In addition to that, students get introduced to optimization, signal and image processing. A question and answer session with the client to define the problem precedes modeling and implementation of the solution, so I emphasize to my students the importance of reading, writing and speaking mathematics.

I introduce various technology within the math department including computers equipped with MATLAB, OPL Studio, Mathematica and Maple. Because an understanding of these languages and programs is vital to solve the problems, I have a key role helping my students to use all the software.

Teaching college algebra and trigonometry poses a separate but equal challenge. This is a class largely for students who have chosen majors outside mathematics. Since I have a wealth of student experience to draw upon and share with them, in this class I function as mentor as well as teacher and both roles are crucial. My goals are not only to introduce students to the basic principles of algebra, but also to establish good scholarly habits that will benefit the students throughout their careers. My love of mathematics, my sincere effort to mentor my students in positive academic organization, open door policy and my solid technical skills all serve to inspire students and favorably shape their learning experience.