

# Teaching Statement

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Experience:

My teaching experience includes being a teaching assistant at Carnegie Mellon University for both undergraduate and graduate course level.

I was a teaching assistant for:

- *Multivariate Analysis, Multi-Period Asset Pricing, Stochastic Calculus for Finance, Dynamic Risk Management.* These graduate level courses were offered by the Master of Computational Finance, an interdisciplinary program.
- *Calculus in 3-dimensions, Methods of Optimization, Differential Equation.* These undergraduate level courses were offered by the Department of Mathematical Sciences.

Teaching Philosophy

One of the most difficult aspects of teaching, in my humble opinion, is to motivate the student to learn and appreciate the material. In order for students to keep being motivated and to maintain an active involvement, it is important to me to present their responsibilities clearly and to provide pertinent feedback on their work. The enthusiasm a teacher shows is of paramount importance in stimulating learning and success in students. I find that one of the biggest challenges for keeping the material interesting and relevant is the fact that I am usually addressing a diverse student body. I consider that giving example from real life situations is a very effective way to keep the students motivated. While introducing a new concept, I try to stress the motivational aspect by giving a lot of examples from real life applications. I find this strategy very effective in motivating the students to overcome lengthy computations and pure theoretical aspects that sometimes appear in a mathematics course.

Students have various levels of background and learning styles, which means that a teacher must mesh the students' needs with the course structure and content. I am frequently adjusting my teaching style to benefit the students.

I try to help the students develop the ability to routinely solve math problems without assistance. I also try to cultivate an appreciation for mathematics when necessary, to alleviate a student's pre-existing fear for mathematics. The major difficulty in teaching mathematics comes from necessity of striking a balance between the connections to real life situations and the great volume of technical knowledge required to succeed in the science itself. The practical yet challenging problems that I provide in recitation are aimed at getting the student to acquire new problem solving skills, but also to get involved in the material. I stress to my students the importance of mathematics in

gaining useful skills and technique, and an analytical prospective that may be applied far beyond the classroom.

In recent years, the use of technology in education has become an important issue. The use of technology can help replace the computational drill with more difficult tasks that cannot be achieved without leaving lengthy computations to the computer. For example I have used Mathematica in my Methods of Optimization class.

In my opinion it is too much to expect that all students will be able to understand the most complicated material through reading and lecture only. This is what the office hours are for. Therefore I encourage the voluntary attendance at office hours and I make special arrangements for those whose schedules conflict with office hours. I find it useful to discuss the exam grades during the office hours.

I am interested in finding the most effective ways of stimulating the intellectual growth of those entering my classroom. I am working in being flexible, adjusting my approaches according to the needs of my students. I am improving my teaching style by seeking and analyzing student feedback, attending teaching seminars, reading and experimenting with new methods. Through these evaluative and informative processes I am continually perfecting my teaching style. Improving my teaching style it is a continuous process, and I am still learning how to teach in a way that is fun and academically relevant. I find it easier to teach students who are passionate about the subject, but on the other hand I find it equally important, although more difficult, to teach those who do not have a love for the subject. My respect for each student increases his or her desire to take an active part in the class. It is important for me to learn and use students' names early in the course and to learn information such as major and minor fields of study.

I believe that true learning involves active thinking. The best classrooms, in my opinion, are those where both the teacher and the students learn from each other. Teaching should challenge both the teacher and the student. I am challenged by the attempt to delivering the course material in different ways and different perspectives.

At Carnegie Mellon University, where I am a graduate teaching assistant, there is a major emphasis on good teaching, and I had several helpful mentors.

Although there are good research days and bad research days, teaching is always fun for me.

I will close by saying that I received good evaluations from my students regardless of the level of the class I was teaching.