

TEACHING STATEMENT

KSHITIJ KHARE

I come from a family of teachers and have noticed and heard since my childhood that teaching can be a very uplifting and satisfying experience. Over the course of the past four years as a Teaching Assistant in the Department of Statistics at Stanford University, I have experienced it myself many times. I have learned that to be a good and effective teacher, one has to understand the material thoroughly, understand the level at which the student can grasp the subject, and work hard to present the material clearly and in an organized fashion. One must actively encourage students to ask questions and create an interactive atmosphere in the class. This definitely leads to a better understanding and more interest on the students' part. It is also important to be patient and be ready to repeat a particular concept several times or in several different ways, if the students are having problems understanding it.

During my first seven quarters, I was a Teaching Assistant for various undergraduate and graduate courses in Probability and Statistics. My duties included holding office hours, teaching review sessions and grading. But my first experience as an instructor was in Summer 2006, when the department appointed me as the *Qualifying Examination Coach* for the first year Ph.D. students. My job was to prepare the first year Ph.D. Students for their qualifying examinations in Probability Theory, Theoretical Statistics and Applied Statistics. This was done by solving questions from the previous qualifying examinations and discussing important concepts and methods as and when they came up. I had to work hard, but as I went along, my presentation, organization and ability to get through to the students improved sharply. I enjoyed doing it and was appointed to do the same job in Summer 2007 and Summer 2008. These three experiences taught me that teaching can be hard work, but the rewards, especially the personal satisfaction at being able to help someone, and the admiration of students can be immensely satisfying. I was delighted to receive the Department of Statistics **Teaching Award** for the 2006-2007 academic year. This award further strengthened my desire and motivation to be a good and effective teacher.

One question which possibly every teacher faces, is how to balance the pace and content of the course to accommodate the weaker students, but still keep the stronger students interested. I feel one way that definitely helps is going over harder (but non-mandatory) material now and then, and maybe putting in harder problems for extra credit in homeworks and exams. This way, the weaker students don't get scared off and

the stronger students have something interesting and challenging to work on.

The thoughts and ideas for teaching that I have presented so far are of course general guidelines which I have developed based on my personal teaching experience and discussions with colleagues. I do realize that it is important to adapt one's style and techniques based on the content of the course and the level and background of students. Teaching can be challenging sometimes, but it is my belief that hard work, patience and an openness for new ideas and techniques are of great help to overcome these challenges. My experience at Stanford has been valuable and I hope to continue to broaden and strengthen my teaching skills.

LIST OF TEACHING ASSISTANT RESPONSIBILITIES

| QUARTER | COURSE NAME | COURSE TITLE | LEVEL |
|--------------|--------------|--|---------------|
| Fall, 2004 | STATS 60 | Introduction to Statistical Methods | Undergraduate |
| Winter, 2005 | STATS 211 | Introduction to Meta-analysis | Graduate |
| Spring, 2005 | STATS 218 | Introduction to Stochastic Processes | Graduate |
| Summer, 2005 | STATS 116 | Theory of Probability | Undergraduate |
| Fall, 2005 | STATS 116 | Theory of Probability | Undergraduate |
| Winter, 2006 | STATS 310B | Theory of Probability-II | Graduate |
| Spring, 2006 | STATS 218 | Introduction to Stochastic Processes | Graduate |
| Summer, 2006 | Quals Review | Qualifying Examination Review (1 st year Ph.D. students) | Graduate |
| Winter, 2007 | STATS 310B | Theory of Probability-II | Graduate |
| Summer, 2007 | Quals Review | Qualifying Examination Review (1 st year Ph.D. students) | Graduate |
| Summer, 2008 | Quals Review | Qualifying Examination Review (1 st year Ph.D. students) | Graduate |