

# Teaching Statement

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What drives me into teaching could be resumed in the immense joy and satisfaction that I feel when I am able to help my students understand the concepts taught in class and when I notice that they can successfully apply them on their class work or research. When I was in undergraduate school, explaining abstract concepts using real life examples and trying to bring out the essence that lays beneath the maze of mathematical equations in simple terms were the things that I felt made my fellow classmates approach me with their doubts. As time went by, this reinforced the feeling that I have some special ability in me to become a teacher. Teaching is an adaptive process in which one has to reach a wide spectrum of students with the prepared course materials, some of whom can learn fast and some with difficulties. As the class progresses, bringing all the students to the same level requires additional help in terms of extra classes, discussion sessions, problem-solving sessions etc. My favorite method is to encourage students to ask questions during the class and if there are not any doubts, then I pose some questions to the students myself. When working some important concepts I always divide the working board in two halves. On one half I work on the mathematical derivations and in the other half I can explain the concepts behind it in real-life examples. Having worked in the industry for four years has helped me a lot in getting practical insight in to many of the Electrical Engineering concepts which I try to inculcate to my students in class.

In the advanced graduate level class I taught –which included students from Electrical Engineering and Digital Arts, I was particularly faced with the problem of teaching programming techniques to do project assignments. So I had set up a web survey questionnaire that each student had to complete before the first day of the class. This helped me to gauge the programming ability of each student. I also arranged extra class sessions during the evening to facilitate the techniques that they needed to acquire to be successful in the class. In addition, I made available some programming templates that students could use for the course, which greatly reduced the amount of coding that they need to do and allowed them to concentrate more on the core concepts and how to apply them to their projects. A discussion forum using the web catalyst tool helped with interaction among the students as well as with answering questions to many students at the same time. As a result of these and other techniques, paired with the interest of the students, one of the class projects developed by a group of Digital Arts students won a prize in a national programming contest. My advisor gave me constant feedback on presentation style and time management by sitting in my class and taking notes. I learnt many valuable points about teaching from his feedback. Also, the feedback from students helped me to prune my teaching methods so that I was able to teach the same course better when it was offered this year.

Furthermore, I believe that a teacher also needs to develop a working environment in which students should feel free to approach the teacher at any time to ask questions on the subject matter and beyond it. Simple things like remembering their names and calling them when we see them on the walkway or an elevator can help make the students feel welcome. Apart from fixed office hours I always keep my office door open and accessible to any students whenever I am there. In addition, I think we have to make use of the technological resources such as web-based discussion forums, anonymous student input through emails and well-maintained course web pages to be able to truly reach the students in many ways and help them find the way of learning that they feel most comfortable with.