

Teaching Statement

I am highly motivated in applying for a faculty position in a University because I thoroughly enjoy guiding, teaching & interacting with students and love working as a Professor. My teaching statement is organized as follows. First, I briefly explain the lessons learnt about teaching during my student years. Then, I briefly explain my teaching experience thus far, followed by my teaching style and methodology that I devised based on my experiences. Finally, I briefly list my teaching interests.

Lessons learnt about teaching during my student years: As we all know, every teacher was once a student and hence can easily understand student's expectations from a teacher. During all my student years, I had many chances to meet some of the brilliant teachers and learn from them. Being a well-motivated and attentive student, I always enjoyed and did well in classes where the teacher was:

- Interested & Excited (about the course material) – Showed good interest and excitement when teaching the course material.
- Open – Open to questions, clarifications and discussion.
- Interactive – Frequently quizzed the class during the lectures, to make it more interactive.
- Appreciative – Recognized a student if he or she answered a question or did well in a test, presentation or project.
- Unbiased and Fair – Fair and unbiased in grading (at least under my perception).
- Reasonable – In setting goals, assignments, projects and exams.
- Accessible – Spends individual time with the students.
- Good in Oral Communication – Comfortably fluent in English.

It is interesting to note that, not all the above (but at least few) would be applicable to a less-motivated or weaker student.

I managed to do well but didn't enjoy classes where the teacher:

- Didn't have good oral communication skills or had an accent that was difficult to understand.
- Was not so excited or interested in teaching the course material.

When I was an undergrad student, I was more concerned about the grades, but when I went to grad school, I was more concerned about learning and understanding the course material deeply and exploring new areas.

My Teaching Experience & lessons learned: My teaching experience can be traced back to when I served as a lab assistant for Operating Systems, Computer Data Analysis, Introduction to Microcomputers and Computer Applications for Business labs during the initial days of my graduate study in the School of Computing and Information Sciences, Florida International University. As a lab assistant my job was to conduct weekly lab sessions, prepare lab assignments and grade them. I had a chance to interact with the students individually and answer the questions they had.

My in-classroom teaching experience started when I became a teaching assistant for Data Structures and Principles of Database Management Systems. My job was to offer review lectures (before exams), prepare and grade bi-weekly assignments and also grade the midterm and final exams. This was my first experience lecturing a class even though I had given talks before, in major conferences. While helping students solve problems, I learnt new ways to solve a problem which I didn't think before. I also realized that being a teacher, I was actually given a second chance to learn the course again, but in a much more thorough way.

I had a complete experience of teaching a class when I was given a chance to instruct an undergraduate programming course (Introduction to Programming in Java). I taught a batch of forty undergraduate students, the preliminary course in programming which was intended especially for IT majors. I offered weekly lectures, constructed and maintained the class web page, prepared and graded bi-weekly assignments (to make sure students get regular practice) in addition to preparing and grading the midterm and final exams. Besides holding regular office hours, I also allowed students to make individual appointments; this ensured that they could seek for help whenever they needed it. When I found that students lagged in their understanding of the course material, I stopped progressing further with new material and conducted review sessions which gave them a second chance (especially for weak students) to understand material covered in previous classes. I also realized that a good teacher would concentrate on the weaker or less-motivated students and this would improve the class on the whole.

My Teaching Style and Methodology: Based on my teaching experience so far, I have devised a methodology for effective teaching which I summarize as follows:

- *Teach-by-example:* Examples usually bring a practical context in the subject and grabs attention of the student. It also serves in clarifying certain questions which would otherwise remain unanswered. For example, if I am teaching a database class, I would work out the steps in creating a university database after getting in agreement with the students about the database requirements.

- *Frequently test student's understanding & progress*: To make sure students are on right track and get regular practice, I would give them biweekly assignments and quizzes on the material covered in the past two weeks. I understand that this could increase the grading overhead, but I believe it is worth the effort and would improve the class.
- *Concentrate on weaker and less-motivated students*: I believe that the true evaluation of a class's success would take in to consideration how the weaker students performed and not on how the top students did. As I mentioned before, I would concentrate on the weaker or less-motivated students and this would improve the class on the whole.
- *Provide short review sessions once a month*: I would frequently review key concepts in different contexts so as to reinforce them in student minds. Whenever I find students lagging in their understanding of the course material, I would stop progressing further with new material and conduct review sessions which would give them a second chance (especially for weak students) to understand material covered in previous classes.
- *Make the class more interactive*: Students must be active participants in the learning process, rather than passive observers. This is particularly important for lecture courses.
- *Teach Undergrad and Grad students differently*: I believe that a different teaching methodology is needed for the undergrad and grad students. While undergrad students need to be monitored for their understanding of the fundamental concepts, the grad students should be engaged in presenting research papers, writing research surveys on a topic and possibly doing a research project.

My Teaching Interests: My Teaching interests are in the areas of

- Database Managements systems,
- Data Structures,
- Programming,
- Graph Theory,
- Information Retrieval,
- Design and Analysis of Algorithms,
- Natural Language Processing and
- Data Mining.