

Statement of Teaching Philosophy

Introduction

During the 2008-2009 school year, I had the pleasure of teaching two classes each quarter at UCSD. The classes varied in material from a preparation class for calculus to an upper division proof-based class in linear algebra, with sizes varying from 30 students to nearly 300 students. I was involved in both coordinated classes, as well as courses where I led the only section with generally unspecified guidelines. Over the course of my teaching career, both my style and my perspective on the many roles of a teacher have evolved to what they now are.

Although it is clear that the overall purpose of teaching is for students to learn and understand the goals of the course, a professor must play a number of different roles in order to do this effectively. In the remainder of this statement, I will describe the different roles which I have identified, and discuss how student learning is affected through my practices.

Instructing

The most obvious role that a teacher plays is the role of instructor. This role first begins with lecture preparation. I generally spend around an hour preparing for each lecture, using a number of resources, including the course text book, borrowed notes from other professors, and course notes found on the web from other universities. I pay particular attention to the organization used in the various resources, and try to make note of different approaches, with the hope that students may not understand each and every approach taught, but, if given enough perspectives, should eventually catch on.

At the start of lecture, I give an outline of which subjects will be covered in that lecture, including any relevant textbook sections. The outline remains on the board throughout the lecture to give context to the material. As I lecture, I punctuate concepts with headings and titles to provide smaller-scale structure. Each concept is introduced with motivating examples to spark the student learning process with interesting material. I present the problem and, with student interaction, develop intuition and formal tools to solve it. To solidify the approach, I work through numerous examples with help from the students to build their reasoning skills. Throughout my lectures, I try to pause frequently to ensure students are following the material and adjust my pace as necessary.

The use of technology in my classes has so far been mild, but helpful. I distribute all content online, and have used computer software to aid in visualization in the classroom. I would like the opportunity to teach in an even more technological setting, seamlessly using computer assistance where appropriate.

Instruction doesn't end when the lecture does. I make sure that students have access to more personalized help through my office hours. I schedule numerous hours throughout a week to be available to the largest subset of students possible. I try to be approachable so that students do not feel too intimidated to come to me with their difficulties and also try to be flexible with scheduling meetings outside of posted advisement times. I believe

that answering questions without criticism or condescension encourages students to feel comfortable, and so I strive to remain open minded and helpful, without simply giving the answers.

Evaluating

The role of evaluation is one of the more difficult roles as a teacher. This difficulty stems partly from the challenge of finding questions which are hard enough to be interesting and meaningful, but without causing undue heartache. I have begun writing my own homework problems so that students can see problems written in my own style and notation before seeing my exams. I either collect the homeworks for credit or I encourage students to complete them by giving in-class quizzes based on them; without some motivation, many students will ignore these helpful exercises to the detriment of their learning.

The other difficulty of this role is trying to remain objective yet reasonable. Students can often become emotional over their performance and this can cause them to grow hostile towards the instructor or teaching assistants. This hostility can easily affect their ability to learn the course material and so it is important to always remain calm and fair.

I try to ensure that outside factors that affect student test performance are controlled. I write test problems in language similar to that used both in lectures and on homeworks, and they require at most small extensions beyond what was covered in detail. I also try to keep the tests at a length which easily fits in the time allotted; the stress of an exam is enough on its own that prepared students should not also feel an overly restrictive time constraint. As a grading policy, I try to stress consistency; if students feel things are graded unfairly, they will again grow hostile and withdrawn.

Supervising

Supervising is a role which I had originally overlooked before I started teaching. Here I am referring to the fact that we generally are not only in charge of student learning, but also in supervising various teaching assistants, graders, and tutors. Regularly meeting with assistants is important to ensure that students aren't given conflicting information. Meetings also allow the assistants to regularly relay information and concerns to me and each other to ensure that the learning experience of the students is not compromised.

I learned how important it was to enforce deadlines on my graders to ensure that we were providing prompt feedback to the students. I adopted the use of an online system for posting grades so that students had rapid access to their scores and statistics. Although this does not replace the need for students to collect graded work, it was helpful for reducing the number of direct questions from students regarding their grade, allowing me to concentrate on teaching, and less on administration.

Learning

Perhaps the most important role of a teacher is the reverse role – learning. Learning about how and what students understand best is an important piece of this. Because students are exposed to so many different teachers with different styles, their feedback is often the best means of evaluating my skills. I use written, anonymous evaluations to collect their thoughts and incorporate their suggestions into future teaching. I try to discuss techniques and pitfalls with other teachers to learn about and incorporate their successful methods. By remaining a student of the art of teaching, I can improve myself and, in turn, provide a better education for my students.