Teaching Philosophy

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When I was first given the task to teach a University level course, I was faced with the dilemma of how to effectively teach the class so that they can grasp the concepts and be stimulated, while at the same time being respected and well-received by the students. For this, I thought back and listed the methods, attitudes and personalities of those professors that had left impressions and influences that lasted. These few-in-number professors had the capabilities to teach effectively to their students and all of them had the following characteristics, which I have strived to adapt personally and have incorporated into my own teaching philosophy:

- Strong understanding of material: Professors who thoroughly understand their material are the most capable of expressing it clearly. By understanding material to its fullest, a professor can easily draw up many examples and alternate viewpoints to present material. This is essential since many alternate ways of presenting the same material can help many students. Many times I find myself opening up texts and references to get a new understanding of some concept or to find a new example or explanation to help in my teaching.
- No fear of saying “I don’t know”: Too many times, professors are afraid to say that they don’t know the answer to something and instead try to hide this fact by intimidating students or avoiding questions. My feeling is that if I am asked something and I don’t know the answer, the best example I can set for my students is to say so and then also tell them that I will find out the answer and present it to them. In fact, I encourage students to ask any and all questions, no matter how seemingly difficult or far-fetched. I like to think that students appreciate this and I hope that this mentality helps them to realize that being in a University is all about asking questions.
- Real-life examples and analogies: The importance of using real-life and current examples and applications can not be overstressed. It is amazing as to how alert and interested students become when you explain how some seemingly abstract mathematical or scientific theory or concept applies to current everyday aspects of life. As a simple example, when I introduced The Sampling Theorem to my undergraduate class, they were all quite amazed to see how this simple theorem applied to every digital device they owned, such as their CD player, and also how this theorem applied to television and even film! Without this tie-in to everyday life, many concepts can go unappreciated by many students.
- Undergraduate teaching is not a chore: One of the unfortunate aspects of my undergraduate experience was that too many professors did not respect their undergraduate teaching assignments. Many times, it was quite obvious that a professor considered teaching undergraduates a “chore” and that any students that were not graduate students working under their supervision, were unimportant. It is because of undergraduates that the university has income and it is because of the undergraduates that the university exists; unfortunately too many professors forget this fact. Personally, I find it quite rewarding to see sparks of interest from my students. It is quite fulfilling to have students approach me and tell me how much they love the material that I taught them and that I have inspired them to learn and to strive for more.
- Available for help outside office hours: My feeling about extra help is that it should be available whenever and wherever possible. Of course, I set aside formal office hours for my students but I let them know that if they come to my office at anytime, that I will make my best effort to see them. I know how frustrating it can be to an undergraduate when they want to ask something to get a better understanding but cannot find the professor outside office hours. For this reason I also like to implement an electronic discussion board on my course web pages to allow students to post questions in an open environment. I then am able to answer questions and help with conceptual ideas even from home and at any hour. Of course, not all students make use of this tool but for those that do, such a connection to a professor really helps.
- Students are adults: While I believe that creating a relaxed and friendly environment in which students can learn is important, I also firmly believe that students are not children and that they should be treated as adults. I believe that University Policy should be followed and upheld and that the students should not be exempt or be allowed to flex these rules. I run a “tight ship”, so to speak, when it comes to deadlines and protocol and make that evident to my students. I believe that when students see that

I have respect for my course and that I take it seriously, i.e., that it is organized, structured and well prepared, they realize that I respect the university, my position, the course material and that I also respect them.

- Make use of available tools: While I believe that it is quite important in many engineering classes to actually use a blackboard/whiteboard to solve problems and show examples to a class, I also firmly believe that it is extremely advantageous to use technological tools that are available. This does not mean that lectures should be completely slide-based. What I believe is that there are many resources that can be used to cement a concept and to show certain theories interactively. Furthermore, I believe that using advanced teaching web interfaces for classes is a must. Systems, such as BlackBoard, provide many tools that a professor can use to provide a close link to the students, even while being away from their office. The importance of such a connection cannot be overstated, especially in a technological field such as engineering.