Teaching Statement Gerard Michel Awanou

Over the years I have taught a great number of mathematics courses from the beginning of the curriculum, e.g. college algebra, to advanced graduate classes.

Obviously, many students take my classes because these are required for most advanced classes and because the material taught is needed for specific courses in an area they are interested in. As a teacher and scholar, I also give an example to my students of the work involved in my discipline. I communicate to my students that success requires hard work and perseverance. The study of mathematics impacts greatly students life because it can be seen as a laboratory in which one faces the questions of scrutinizing a problem, develops problem solving skills and learns about discipline. Especially in beginning classes, the main part of my work consists in getting students into proper study habits. The successful student in my classes is able to question new information she/he doesn't understand and ask critical questions about why this is true, why we should care and if there are other ways to look at the problem.

The approach I take in the classroom is to motivate the concepts and show the intuition behind them. I then raise my students' awareness on the difficulties in performing the computations. Put it differently, my goal is to make them be part of the building process of the lecture. In this process I take a lot of questions from the students. This is at times risky, but the reward is great. The students get to ask deep questions, and I can detect the misconceptions and integrate the corrections into the lecture. On the other hand, they are more likely to pay attention to me when I'm answering their questions. I also use past homework questions in the lecture. I have found that by sending students to the board, they reach a better understanding and other students can see what mistakes to avoid. Group work in class is a tool I have found very effective in teaching difficult concepts. I try to convey the same information in different ways. An important feature of my classes is the use of online class management tools e.g. Blackboard and Web based home work delivery systems like WebWork. These allow me to give and receive prompt feedback from the students.

Teaching is an art and requires interaction to be effective. My students know that I respect the efforts they make in learning the subject and that they can too contribute to my intellectual development. Through my interactions with undergraduates as part of the undergraduate research apprenticeship program, I gained valuable insight into how to communicate effectively with non experts.

Reflecting back on my own teaching, I believe I have become an effective teacher for a few reasons. I have learnt to communicate clear expectations to the student, how the material being presented relates to previous material and how it may impact their life. Why it is important and why they should care. I have learnt that things I take for granted because I learnt them so easily myself is not at all straightforward for the students. Indeed my shortcomings in my own research provide deep insight into the problems faced by students but at a different level.