

# Teaching Philosophy

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As an academician, I consider teaching to be the most important activity which takes place on a college campus. The interplay between a person thought to possess knowledge and the person requesting or required to acquire information is critical to the development of both persons. An instructor with a poor attitude towards interactions with students can impart the same bad attitude or even anger towards the instructor, subject matter, or institution. These negative feelings could stay with the student for life; this scenario is the antithesis of teaching. An instructor with an enthusiastic and caring attitude, however, can impart the same positive attitude to students, having similar lifelong effects. However, students are not the only beneficiaries of good instruction. In order to effectively impart knowledge to another, an instructor must consider new ways of thinking and solidify connections between different areas of mathematics in his own mind.

In this vein, it is often helpful to have a student assume the role of imparter of knowledge. In explaining the subject of interest to another student, the newly tapped instructor must assimilate what he has learned about a particular area. Indeed, someone who has just learned how to understand the material will often explain pitfalls or details which the experienced instructor may have forgotten or left out in his more comprehensive explanation. In this way, both student and student-instructor may come to a fresh perspective on the material.

The current generation of young people has grown up in an environment dominated by technology and has come to expect its use. In order to keep them engaged, we, as educators, need to alter our teaching methods to incorporate technology in a meaningful way that demonstrates concepts, encourages creativity, and fosters critical thinking. Ways to accomplish this are currently being developed and vetted in classrooms all over the virtual world and should continue to evolve with changing technology. As an educator, I consider the development of quality materials and methods appropriate for use by technologically sophisticated student populations a major challenge to my profession. The other challenge will be to continue to teach the concept of proof, the language of math and notation so that the next generation of mathematical thinkers can articulate their great ideas to the world.

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Learning the full rich history of mathematics and its importance in the development of civilization and technology is a subject worthy of everyone. Understanding that analytical thinking skills developed by formal mathematical study are applicable to complex situations occurring in long and short term life planning is also worthwhile. It is my belief that these broad ideas are what non-scientists will remember— not the specifics of how to integrate or differentiate. These non-scientists are likely to make critical decisions about math resources and education in their spheres of political, social and economic influence. In the push to teach basic calculus concepts to students in low-level or terminal math courses and because it is assumed to be obvious to students in higher level math courses, this so-called “softer” information is frequently pushed out of the curriculum. In addition to traditional mathematical content, every student in every discipline needs exposure to this information.

Encouragement, encouragement, encouragement. I feel that encouragement cannot be overstressed. Praise at a level appropriate to the achievement is a common and fair reward, but between times of praise, encouragement must reign. I mention this last not because it is an afterthought, but to emphasize its role as the bottom line in my teaching philosophy.