

BECCA THOMASES — TEACHING PHILOSOPHY

My approach to teaching is based on understanding the students' perspective. I try to use my own experience as a student of mathematics to recognize their struggles and to encourage them to become confident and clear in their mathematical thinking. Every time I step into the classroom I incorporate a few basic methods to establish connections with the students and to help the students take ownership of their learning.

Create a good learning environment From the first day of class I try to make my students feel comfortable and open to learning. I announce that all questions are welcome and that they should feel free to interrupt me. I frequently call on students by name to answer questions and to contribute comments. Moreover, by using real world examples and referring to their other courses the students stay interested in the material and develop their own insights.

Care about your students My students know that I think they are important. Yes, I have time for them. Yes, I want them to learn. Frequent announcements of regular office hours and availability for appointments remind and embolden my students to come talk with me. This helps my students to trust me and enables us to work together. Also, I hold extra office hours before exams for last minute encouragement rather than last minute cramming. I have learned that students try harder when I try hard for them.

Maintain high expectations I encourage good study habits and communication skills by setting an example in class, on the board, and in my office hours. I expect a lot from my students and that prompts them to work harder. I employ various techniques in my classes depending on the class size and composition. When appropriate I break students into groups and allow them to work through ideas together and present their solutions to the class. Together the class determines the strengths and weaknesses of the solution, and the students improve their communication and mathematics skills simultaneously. When giving examples in lecture I may lead the students through the set-up of a problem and then leave the rest for them. This way they do not give up from the outset and they can figure out the subtleties on their own. I emphasize that accuracy and efficiency matter, but that they will need to understand why something is true to fully grasp the problem.

Be enthusiastic and build confidence I am a positive energetic person. My enthusiasm affects my students. Even at 8 am I have often been accused of having too much energy. I teach my students to have a positive outlook about their work so that they can enjoy the time they spend learning. When working with a student individually I build his or her self-confidence with affirmation and support. In math, giving up is a common route to failure that I don't allow my students to take. I assure them that they can do it and that they can do it without me.

As a graduate student I was honored to receive the Department of Mathematics Teaching Award 2000-2001. This award is given to two teaching assistants each year by the mathematics faculty at UCSB. I was further honored to receive the UCSB Foundation Academic Senate Outstanding Teaching Assistant Award, 2000-2001 (see <http://senate.ucsb.edu/awards/2000-2001/detail/thomases.html> for more details). This award is given to four teaching assistants campus-wide each year. One quote from the citation I received is: "What makes a student truly succeed in mathematics is to a far lower degree the command of template procedures than the click of "getting " WHY they work and WHY they are interesting; and that is the event which Becca Thomases manages to trigger with an extremely high success rate."

As a Courant Instructor I have received many favorable evaluations from my students including "Becca was a wonderful, enthusiastic teacher who was always available to her students", "she seemed to have a fair and understanding response to students' capabilities" , "It is very much a breath of fresh air to have a math professor who is vibrant and energetic. She presents material very clearly and orderly and makes class a pleasure."

At the end of every semester my students know that I cared about them individually and wanted them to learn. I hope that they leave my class with a stronger ability to learn mathematics, and begin to enjoy the subject for its own sake.