

Teaching Philosophy Statement

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My goals in teaching mathematics are to convey the material in a clear and concise manner, cultivate logical reasoning skills, and create an engaging and collaborative classroom environment. Elaborating on how I prepare for and conduct each class will make clear how I achieve these goals.

I take pride in providing succinct lectures. Much thought goes into my choice of words, spoken and written on the board, so that the material is easy for students to understand. To this end, these are some questions I ask myself when preparing for a lecture:

- What are the key concepts I want students to master from this lecture?
- Why does a certain fact seem to make sense intuitively?
- Why is it logical to do this as a next step in a problem?
- What is a good way to remember a certain formula without memorizing it?
- What are some different ways to explain a concept that I anticipate students to have questions about?

Reflecting on these questions helps me explain concepts so that the students observe the clear step-by-step line of reasoning. After completing a particular example, summarizing the approach from a more general viewpoint can encourage students to form connections and apply problem-solving skills outside of the example at hand.

Learning should take place in a positive, engaging, and collaborative environment. Group work is one method I use often to create this environment. Immediate feedback from both peers and instructor helps students learn and strive to do their best work. Additionally, when students are regularly interacting in groups, they are less hesitant to ask questions in lecture.

In addition to assisting discussion sections for various math courses, I have been the instructor of record for a calculus for social sciences class of thirty-five students and a vector calculus class of one hundred students. This has given me experience working with students with a wide range of abilities and backgrounds in math. I have learned that varied instructional methods are necessary depending on both the size of and the students in a class. I also encourage students to share feedback and suggestions to improve the course at any time.

These goals in teaching mathematics stem from a desire to see students succeed and an enthusiasm to do as much as I can to help. I think this enthusiasm is contagious, and hope my students succeed in math and appreciate and enjoy it along the way.