

TEACHING STATEMENT

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One of the many benefits of my graduate student career at the University of Oregon has been the opportunity to lead a college level mathematics course nearly every term. Having taught a variety of math classes, from the College Algebra level to Introductory Analysis, I have interacted with students of diverse mathematical skills and interest. With each student comes a unique point of view and it is the exciting challenge of the instructor to understand how the student thinks. Being able to evaluate the reasoning each individual is using is essential to being able to communicate mathematics effectively. As often as possible, I explain ideas from numerous perspectives.

I find that keeping a friendly, approachable attitude in the classroom allows for a constructive, open dialogue between myself and my students. I encourage frequent questions about concepts and examples and answer to the satisfaction of the student. The atmosphere for learning in the classroom is most effective when there is room for open conversation between the students and the instructor.

Group work in the classroom can also be a strong educational tool. When my students break into groups to work on worksheets, I observe and offer help when it's needed. When there are questions, I explain the problem until at least one person in the group understands the material. Then, I ask that student to explain the ideas to anyone in the group who is still confused. This approach has many benefits for everyone involved. The knowledgeable student will have the concepts solidified by explaining them to someone else, since this is often the best way to come to fully understand ideas. It also helps the rest of the group understand the material better, and it also allows me to circulate to other groups that may need my help.

Since practice is an extremely helpful tool for learning mathematics, I make sure that my students always have some assignment to think about. Group work is encouraged on homework, though individuals should of course write up their own assignments. Working in groups outside of the classroom further encourages discussion of mathematics and the free exchange of ideas is beneficial for the students and their peers.

I find the most rewarding opportunities for teaching come in office hours. There, the student can ask exactly what they want and I can best evaluate their understanding of mathematics. I find the moment of epiphany exciting for both myself and the student. That instant yields the greatest reward that teaching has to offer.

In all of the approaches above, the goal is for the student to be self sustaining, able to reason problems and ideas out on their own, while being able to communicate

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those ideas well to others. It is my main goal as an instructor to help others learn how to reason, and I find this an exciting and motivating challenge.

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