

## Teaching Statement

At its core, teaching is simply the transfer of knowledge from one person to another. However, exceptional teaching occurs when one considers all the factors, both internal and external to the classroom, that affect the instructors ability to transfer that knowledge. Each semester I am assigned a course and given the task to teach mathematics to a group of students; more importantly, I am actually given the opportunity to shape the arc of learning for each of my students. If I cultivate a students thirst for knowledge, and develop a students confidence in learning, then the transfer of knowledge becomes simple. Further, by focusing teaching on the student, instead of the information itself, the student often undergoes a significant paradigm shift from passive to active learner that extends beyond the course that I am teaching.

I begin every course the same. I spend a great deal of time during the first meeting discussing expectations for the course. General policies for the course such as grading and late homework are communicated, however, the primary focus of the conversation is on expectations that we as a class should have for each other. I encourage the students to help generate those expectations. We create policies that ensure we are both focused on the material that is covered in class. An example of a policy we have created is that students can expect me as an instructor to not check my email while teaching, so it is reasonable for me to expect the students not to check his or her email during class. We also spend time talking about creating a supportive environment. This environment encourages students to ask questions without fear of saying something wrong or making a mistake thus allowing a student to explore the boundaries of their own understanding of the material in a nonjudgmental space.

My next goal is to get to know everyone. Whether it is a class of seven people or a class of 75 people, I make a point to learn everyones name by the end of the first week. If I am unwilling to invest my time to learn my students names, they are unlikely to invest their time to listen to what I am teaching. Once I know everyones name, I use their names often. I call on people by name, I use their name when they ask questions, I refer to them by name when answering other students questions, and when I see them outside the classroom I always greet them by name. At a large university, it is very easy for a student to begin to feel like a number. I want to dispel that notion in my classroom and let the students know that I care about them as individuals and that I am invested in their success. A further benefit is that the students are able to learn each others names allowing them to more quickly start working together. As the semester progresses, I try to learn as much as I can about the student as a person, from their hometown to their life aspirations.

One of the most important aspects of my teaching style is promoting a dialogue in the classroom as opposed to a monologue from teacher to students. The most valuable learning occurs when students are active in their learning process as opposed to being the passive recipient of a lecture. During class, I frequently ask questions of my students in order to probe their knowledge and help them construct the material that I am teaching. Being able to call on them by name fosters an environment that the classroom is just a conversation

about math. Over time, as students realize that everyone will be called on to answer or give insight at least once every couple days, the classroom atmosphere begins to evolve. Students begin to take ownership of their learning. They ask more questions, and more importantly the questions they ask tend to probe deeper into the material.

Whether it is homework, projects, or studying for a test, when students exchange ideas and help each other, they tend to have a deeper understanding of the material. As a teacher, I work to create environments that encourage that collaboration between students. In class, when we begin new topics or when we are studying difficult material, I often break the students up in small groups to explore the ideas. Usually, the problem given is something that they have not yet learned exactly how to do, and I ask them to use the tools we have learned and create new methods for solving the problem. After several minutes, we get back together and discuss possible ideas and solutions. During my office hours, instead of directly answering a students question, I have a large whiteboard where I ask them to write the problem. I then have other students help to solve the problem. I only intervene when they are stuck, and even then, I try to give them just enough information to get back on track. Usually there are several questions on the board at a time with students working in groups to solve the problems. Further, I encourage them to work on the homework together and to come to office hours when they are unable to solve the problem by working together. Over the semester, I am able to see the students form their own support groups to help each other be successful.

All of the techniques above help deepen a students desire to learn. However, if students do not feel confident that they can be successful, they will often shut down and stop trying to learn. First and foremost, a teacher cannot help students believe they can be successful without knowing the students as a people. Students perceptions of success are often rooted in aspects of their life far removed from the classroom. I openly share my life journey with my students. I have not always been successful in the traditional sense, but time and perspective have taught me that it is in these moments of perceived failure that we often grow the most. During class, I praise students when they have a good insight or solution to the problem. More importantly, when they are not correct, I help lead them to the correct answer by focusing on why and how other answers may be better. I encourage my students to realize that they will not always have the right answer, but that in those moments they stand to learn the most. Outside class, I encourage my students to set realistic but challenging expectations and goals for themselves in our class and their life. I then actively work with them to attain those goals and be successful.

In the end, I strive to move the life needle of my students by a couple degrees knowing that can have a profound affect on the arc of their lives. By cultivating a thirst for knowledge and a confidence for learning, I hope to help my students not only excel in the course I am teaching, but in their entire academic and life endeavors.