

## ~ Teaching Statement ~

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“Success in mathematics is 10% intelligence, 90% hard work.” I’ll never forget these words of my abstract algebra teacher after I had come to his office feeling completely overwhelmed. Once I heard these words, I believed that not only could I do well in the course, but I could *excel* in mathematics. This experience inspired me to adopt the goal of instilling this belief in my students as well. This goal informs all that I try to do in the classroom, which consists of showing genuine care for my students, insisting on practice, developing rapport with my students, and emphasizing the “why” of mathematics.

The first way in which I strive to be an excellent teacher is to show genuine care for my students’ well-being. I try to channel my love of mathematics to the classroom, and come in with the mindset that this beautiful subject can be taught to even those who never believed they could learn it. In fact, helping others to see the beauty that I see is my greatest motivation. If students come into my course feeling like they aren’t “smart enough” to understand the material, then it becomes my job to turn this belief around. On one occasion a student came into my office and told me they were “dumb.” I immediately stopped them and reassured them that they should *never* think that about themselves. On the contrary, all students are potentials waiting to be actualized. And so, if a student tells me they don’t believe they can succeed in my class, I stop them, look them in the eyes, and tell them that yes, they can.

Again and again, I emphasize that mathematics is learned by *doing*. To model this, I constantly seek to engage my students in class; for example, I call upon each student by name and have them practice a problem under my supervision. I also make sure that quizzes are given often, to allow students an opportunity to build their confidence and to study individual types of problems. Finally, I give additional practice problems aside from the homework that the students should use to study for the exams; I then construct the exams from similar problems to these. Using these practices reinforces in the minds of my students that practice is the primary way to learn mathematics, and most importantly, that they will be able to succeed if they keep the mindset that their outcome is dependent on the work they put in, not their perceived intelligence.

To give my students motivation to pay attention in class and to participate, I work hard to establish good rapport with them. I try to inject humor into my classes to lighten the mood. I encourage my students by using their names. This in turn leads to better engagement and thus better learning.

Because many students ask themselves why they should even care about mathematics, I try to give a satisfying answer to this question. This means straying away from explanations that involve algorithm implementation, and preferring those that get at the heart of the problem. For example, when explaining the process of how to derive certain functions and methods in my class, I emphasize the reason behind each step in detail, to show students that I am not merely pulling the method out of thin air. Here, by increasing student awareness of the interconnectedness of mathematics, students can again become better engaged.

By implementing these practices in my classroom, I hope that I can help students see what I saw all those years ago – that they can excel in mathematics. By putting my heart into teaching and believing in each student’s potential, I establish the attitude with which I come into my classroom. There, I make sure my students get plenty of opportunity to practice mathematics and slowly get better at it. I make sure to engage my students and to build rapport with them. Finally, I try to explain mathematics in a way that gets to its heart, not through rote memorization, but through deep understanding of its justifications. With these principles in mind, and with much practice and experience, I hope to be constantly improving as a teacher. As the saying goes, “Be all that you can be.”