Philosophy of Teaching Statement

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Mathematics is everywhere around us and a poor mathematical background does not only limit career choices, but also leads to poor health care, financial, and civic decisions. Beyond the procedural and factual knowledge, mathematics teaches the students to solve problems efficiently, to think logically and critically, to question the validity of an argument, and to analyze and develop arguments. Consequently, a good mathematical background is needed not only for a career in science and engineering, but simply to live a happy and productive life. My role as a mathematics teacher is to help the students develop problem solving skills that will enable them to make sense of the world around them. Supporting materials can be found on my website.

As a teacher, I want to reach every learner of mathematics, help them develop a growth mindset, and see themselves as mathematicians. I will meet every student at their current level and help them to progress to the best of their abilities, regardless of their performance in past math classes. Of course, not every student will become a scientist or a professional mathematician, but every student can have a solid mathematical foundation that prepares them not only for the next math class, but also for a wide range of career paths. I believe that the main purpose of a mathematics teacher is to guide the students in discovering mathematical truths and concepts and to help the students become independent learners. Consequently, students must be able to read, write, and speak mathematics. As a teacher, I will model reading of mathematics texts, writing of solutions explaining the reasoning and the justifications needed to understand, and use advanced mathematical language in my communications.

My background and experience put me in a unique position to teach high school mathematics. I have a deep understanding of mathematics. I earned a Master of Arts in Mathematics degree from the University of Virginia. Beyond the credits required for my degree, I also passed the Ph.D. examinations: *General Examinations* in *Topology* and *Real and Complex Analysis*, and the *Second-Year Proficiency Examination* in *Differential Topology.* I enjoy explaining deep mathematical concepts to all ages, from toddlers to graduate students. I organized a Math Circles for my daughter's friends for ages 3-7 for four years in which we explored properties of numbers, number bases, geometry and logical puzzles. I developed lessons to teach second graders how natural numbers are constructed mathematically. In my placement at Monticello High School, I participated in teaching Math Analysis, Advanced Algebra II, Geometry and Computer Science

I believe that I can be an asset for your school, because I am licensed to teach both Mathematics and Computer Science. Beside a Master of Arts degree in Mathematics, I also earned a Master in Computer Science degree. I am capable and willing to teach Mathematics and Computer classes from freshman level to AP and dual enrollment.

Sincerely,
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