Teaching Statement

Being able to teach does not mean being able to teach well. My belief in good and effective teaching means that educators need to consider their teaching quality not only from their own perspective but also from the student's perspective. I accomplish this belief by incorporating three key elements into my teaching — being knowledgeable about the materials, showing enthusiasm for the materials, and creating a respectful and inclusive learning environment for students.

I believe that being able to connect concepts in class to everyday life can help students better understand the concepts and gain confidence in grasping the materials. This requires that teachers are knowledgeable about the materials they teach and can express abstract concepts in a form that can be intuitively understood by the students. Many mathematical concepts, such as stochastic independence and conditional probability, can seem highly abstract for new learners. When teaching such concepts, I first provide a rigorous explanation, then I make a connection to something we commonly see or experience in real life and provide an intuitive interpretation in plain language. I also encourage students to share their understanding in plain language in class so they can have a comprehension check with each other and others can also learn from it.

I also believe demonstrating enthusiasm for the materials is important. To do so, I often hand-write important notes in class whenever possible to invite students to work with me, particularly for long mathematical proofs. I use handwritten notes to not only reflect my understanding but also my passion for the materials — I am willing to work through the procedure step by step. I also use handwriting to convey the message to students, 'You can do it too!', and show that the materials are not meant to intimidate them; rather, they are something they can master. While working through notes, I pause frequently to encourage students to think about why I am proceeding this way and answer any questions they have. I put my entire handwritten notes in a slideshow and share them with the students after class so they can fully pay attention to the concepts rather than worrying about copying everything down in class. Some feedback I often receive from students is 'Can you include this step in your note?' and 'Can I add a comment after this step?', showing that using handwritten notes also creates a lively classroom environment where students can add things to my notes in class to help each other learn.

I place a high value on creating a respectful and inclusive learning environment for students. Different students learn at different paces, and I treat all of them kindly and patiently regardless of their performance and I am open to feedback and criticisms about my teaching. When I write my notes in class, I frequently pause at key points to give students time to think about them. I like to ask, 'Is there anything unclear here that I can answer?' and 'What can I answer here?' to tell students that it is okay to have things unclear and I am more than happy to answer their questions. When grading, I avoid using comments like "Wrong!" or "Please see

the solution!" Instead, I point out specific parts that they did not do well and give advice on how they can improve next time to help navigate their learning process. Using these practices, I have noticed that students have become willing to reach out to me and discuss their work and the challenges they face during their studies.

A teacher's role has a profound impact on students' learning experience. Poor teaching not only fails to teach the materials effectively but also suppresses students' passion for further exploring the pool of knowledge they are interested in. That is why, as an educator and a mathematician, I am committed to good and effective teaching, and I am delighted to see that my students have been successful in their academic careers through their hard work.