

Teaching is a highly important and enjoyable facet of my mathematical career, and I have been privileged to teach many classes during my doctoral degree at the City University of New York (CUNY). I have taught at a wide range of levels, from algebra to calculus to stochastic processes, both as the lead instructor and as a teaching assistant, and I am always looking for ways to grow. I have also had the opportunity to design the structure of my courses, write my own homework questions and exams, and even help design an entirely new mathematics course.

I am passionate about both mathematics teaching and mathematics learning at all levels and in all disciplines, and I firmly believe that the two go hand in hand, each reinforcing the other. Teaching forces me to grapple with mathematics in a way that I otherwise might not, learning to think about the subject matter from an outside perspective and in turn bolstering my own understanding. On the other hand, students feed off the enthusiasm of their teacher, and as such, passion for the study of mathematics in all its shapes and forms inevitably leads to better teaching and more engaged students.

CUNY is committed to diversity and affordable education, and as such we have many students from underserved communities. **I believe it is important to make classes accessible** to underprivileged students, who may not be able to spend money on textbooks, or who may miss classes or deadlines due to working part-time jobs or caring for family members. I therefore make my classes self-contained wherever possible, and give students ample opportunity to catch up on missed classes or assessments. For example, I post my lecture notes online after every class, as well as homeworks and practice exams, with detailed solutions. I encourage students to contact me if they miss a class and need extra help, or if they need special accommodations for an exam date they cannot make. Last year, as part of my fellowship, I helped design a new calculus course at Baruch College's Zicklin School of Business using only open education resources.

I recognise that even at the best of times students enter the classroom with different backgrounds and experience, and I account for this by differentiating my teaching to be accessible to all, no matter their background or ability. I begin each class with a short, simple quiz and use this to make sure no student slips through the cracks and falls too far behind. I allow these quizzes to dictate the flow and pace of my classes, going back to spend more time on topics that I see students having trouble with. I have found that this better enables students to track their progress and understanding week by week, helping them to identify and address any shortcomings before they snowball. **I strive to make myself available at all times**, both inside and outside the classroom, for students who find themselves falling behind. I work to maintain an atmosphere of openness and make students comfortable asking for help, whether it be during class, by email, in my office hours, or by appointment.

Mathematics is often mistakenly thought to be merely a set of rules to be memorised and mechanically applied. This leads to difficulty down the road when more advanced concepts are introduced that require critical thinking, at which point rote learning is no longer sufficient. I therefore nurture students' curiosity and develop their intuition for the underlying theory. **I encourage hands-on engagement** with the material through detailed examples and exercises which I patiently guide them through, ensuring that they arrive at the solution themselves with minimal input from myself. When someone makes a mistake I open up the floor for others to spot the error, and do not give up until they arrive at the correct answer together. This teaches the merits of perseverance when faced with a mathematical challenge and shows students the benefits of teamwork.

Many students also come to college with the belief that mathematical ability is a natural gift that one is born with. I seek to change that mindset by teaching the importance of practice: mathematics is a discipline, and like anything else, one must put in time and effort to succeed. **I foster resilience** by instilling that even if a student is not successful initially, as long as they understand what they did wrong and keep doing exercises, they will see results. I set high standards for my students, but I do not have unrealistic expectations. I tailor exams and assessments to the ability of my class so that they can be accomplished by all, while still including problems to challenge the more advanced students, and I provide plentiful opportunities to make up for a low score through frequent exams and homework problems. Ultimately, my goal is to motivate students to make mistakes, learn from them, and improve, without the fear of failure or feelings of inadequacy that many associate with mathematics.