

UTA Reflection

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In the Fall semester of 2023, I had the pleasure of being a UTA under Dr. Pan Yan, for Math 413, the Linear Algebra class. I had just taken the class last semester, and it turned out to be one of my favorite math classes. I was very excited to help as the TA for the course. This is my second semester serving as a UTA, so I felt more prepared for the various responsibilities, as well as more confident in my teaching and communication abilities.

My responsibilities as a TA included holding office hours, holding exam review sessions, grading homework, and tutoring calculus in the Math Tutoring Center. Although I had limited attendance overall in my office hours, I did have a couple students that showed up consistently throughout the semester. The difference in teaching between my 413 office hours and in the calculus tutoring center are stark. I had to adjust my approach to each student accordingly. In teaching 413, I would spend most of the time motivating definitions and concepts and explaining my intuitions. In the calculus tutoring center, mostly students needed help with algebra and setting up word problems. Another great experience I had as a UTA this semester was teaching both exam review sessions in the classroom. I got to lead the class through several problems and theorems. It was a unique experience to take the place of the professor that day: organizing my work on the whiteboard, choosing which topics to focus on, and calling on students for discussion. Overall, my math communication skills improved greatly with the UTA program. I learned that some students take different approaches than others, and there is no one-size-fits all approach. Another great benefit to explaining a lot of math to others over the

semester is that my own understanding has deepened. Nothing deepens your intuition of a subject like teaching it to others.

I would recommend this program to any Math Undergrad who is not only interested in what goes into communicating/teaching mathematics, but also wants to grow these skills so that they can become a better mathematician. I have the opinion that you don't really have a deep understanding of a subject unless you can teach it to someone else, and the UTA program is a great place to grow these skills.