

Thank you to the UTA Program

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This was my fourth semester in the UTA program, and despite three previous semesters of experience, I was able to learn and develop several new skills relevant to teaching and mentoring. This semester I served as a teaching assistant for academic advisor Michelle Ort as she taught a colloquium style course for first year math and statistics majors.

This semester, I learned how to mentor students through extended projects because of a research report assigned to students in the course. Each student chose a mathematical topic, wrote an expository report on the topic, and recorded a related presentation. I have participated in projects related to original research within a physiology lab, and experienced a learning curve with independently finding credible sources and synthesizing the information in an interesting and useful way, so I enjoyed being able to mentor other students through their first time going through a similar process with expository research. I found the process of suggesting questions to ask and sources to look at challenging and rewarding. This was also a great experience because the topics chosen by the students were related to their interests, so each project conveyed the enthusiasm of the student that doesn't always exist with traditional math problem sets. Another responsibility I had with this course was to create information sheets on topics that varied with each week. The sheets were designed electronically which gave me the chance to be artistic and creative, and featured useful information for incoming math and stat majors. I was exposed to many useful resources on campus for the first time, which I appreciate as an individual hoping to work with University students in the future.

One of the most immediately rewarding aspects of the UTA program in my experience is tutoring calculus. It's extremely gratifying when students have that "aha" moment because of an explanation that I give them. Because we work one-on-one with students, we are able to see their knowledge increase real-time, and I often leave tutoring feeling a sense of accomplishment that can be rare as a student. Tutoring calculus has also dramatically increased my confidence as a math student and overall person. As a student, I am constantly confronted with material completely new to me and I find it can be overwhelming, so being able to revisit material that I understand but initially found challenging reminds me that I am capable of overcoming challenges in math. Moreover, I have noticed my own understanding of calculus increase each semester. The problems students seem to get stuck are some of the more challenging problems assigned in WebAssign and by the instructors. By solving these problems on the

spot and then guiding students through them, I was challenged in the material much more than I was when I took the calculus courses. This was great preparation for the GRE Subject test and more advanced physics and engineering related courses that I have taken.

I would recommend the UTA program to any undergraduate regardless of their career goals. This program provides numerous opportunities for development of communication skills, leadership, and ability to describe complex and abstract ideas, and an increased sense of confidence, which are beneficial for individuals in any career field.