

Math UTA Program Reflection

This semester, I participated in the math major UTA program as a teaching assistant for Dr. Ethan O'Brien's second-semester real analysis course. My duties consisted of holding weekly office hours and recitation sessions. During the recitations, I presented supplemental material and gave hints for homework assignments. My experience allowed me to improve my mathematical communication skills, increase my confidence, and engage more deeply with the content than I did when I took the class. I would recommend the program to any motivated math major who is up for a challenge.

I admit I was a bit nervous when I began the semester, as real analysis is among the most advanced math courses offered to undergraduates. Developing competency in the material at a level required to perform well as a student is one thing, but mastering it to the point of being able to communicate it to others and field questions is something else entirely. When preparing for my recitation sessions, I would not be satisfied with simply being able to get the correct answer on a problem or to walk through some supplemental topic. I would challenge myself to come up with the most difficult questions that could conceivably be asked regarding what I would be presenting and try to answer them. I did this to ensure that students who came to see me were being helped to the absolute best of my ability. Had I not participated in this program, I likely would never have engaged with the material this deeply prior to graduate school.

My nervousness faded throughout the semester as week after week of successful recitations were conducted. My preparations paid off in that I was never completely stumped by questions. Of course, there were some that took a bit of time to work through, but I was generally happy with my performance. My ability to do this, despite my worries at the beginning of the semester, greatly increased my confidence. Overall, I think that the deep engagement with the material, along with the boon to self-confidence that results from successfully doing so, is reason enough to recommend the program to any student who is considering applying.