

This semester as a TA for real analysis, I learned much about teaching and communicating with students in addition to gaining further proficiency in the content. This resulted in a great boost in my confidence in myself and my ability to effectively communicate mathematics. Real analysis, being an upper-division class, was quite an intimidating subject. At the beginning of the semester, I spent a lot of time reviewing the material to make sure that I would be able to answer any question a student could come up with. As the semester progressed, I became more comfortable and confident that I could figure things out in real time. While reviewing the material is certainly good practice, I learned that it is not necessary to memorize every theorem that could possibly come up (or every proof of every theorem).

Beyond simply knowing the material, communicating effectively is an even greater challenge. It is important to realize that not every explanation will make sense to every student, so being able to adapt and provide an alternate explanation is key. It is extremely rewarding to see when something you said clicks with a student. The realization that I can provide these kinds of eye-opening explanations greatly increased my confidence. One of my primary duties was helping students complete in-class exercises. I was a bit nervous at the beginning of the semester, but towards the end I was looking forward to every exercise so that I could simply talk about math.

I would certainly recommend the UTA program to any undergraduate who is interested. It is a lot of work, and I would suggest making sure you have the time to review the material, especially if it has been a while since you have taken the class. However, it is extremely rewarding. I think that this type of program is a fantastic stepping stone for anyone who plans on communicating math professionally in any

capacity. The confidence and skills gained here will go a long way towards preparing you for your next step.