

UTA Program Final Reflection

This fall was my fifth semester as a part of the UTA program. This time I worked with Math 415A, the first part of the introductory abstract algebra sequence.

As is so often the case, the task that I spent most of my time doing was grading homework assignments. Grading was split up between me and a graduate student who was also working with this class. This was nice because homework was assigned pretty regularly in 415A, so the burden of getting feedback to students in a timely manner was not solely placed on me. I don't really have any problem with grading, but it is nice to be able to focus a bit more energy in other areas when you can.

While working with 315 last semester gave me some experience in TAing for proof-based courses, 415A takes the proofs a step further. I'm glad that I had some experience in grading proofs to draw on, as I felt like I was able to provide much more detailed feedback than I could have otherwise. One observation that I made is that many students who know what they're doing seem averse to writing concise arguments. It almost seems like they feel obligated to stretch their answers out to some arbitrary "acceptable length" before they feel comfortable turning them in. I tried to encourage them to work on this but of course minimizing the amount of unnecessary information in proofs is something you just have to learn from practice.

I also had office hours once a week and held review sessions before each exam. Out of all the classes I have assisted with so far, I would say this one involved the most interaction with students. This was exciting for me, as I think those direct communication skills are really important. I had several students show

up to my office hours and quite a few come to the review sessions. On the whole, everyone asked great questions and I could tell they really wanted to understand the course material, not just collect the grade and forget about it afterwards. That's one of the nice things about working with upper division courses, I suppose.

My favorite experience while TAing for this class was the lecture that I got to lead. Dr. Addabbo went out of town for a conference a few weeks ago, so I had the opportunity to teach the class. I covered the orbit-stabilizer theorem and the beginnings of direct products of groups. While I have a fair amount of practice with giving talks, I had never done one longer than twenty minutes so giving a fifty minute lecture was new territory for me. I found that it went by pretty quickly, though, and honestly a lot more smoothly than I expected. The students asked a lot of great questions, and it was very fun and interactive. I'm hoping to do this once or twice in 415B next semester, if at all possible.

Overall, this was probably my favorite semester as a UTA so far. I really love the math that is covered in 415A and I loved having the chance to teach and hopefully share that enthusiasm with other students. I would like to thank Dr. Peca-Medlin and Dr. Upadhyay for running the program and Dr. Addabbo for continuing to be a great mentor to work with.