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UTA Program Reflection Spring 2022

This semester, I worked with Dr. Aubrey as a teaching assistant for MATH 323 (Formal Mathematical Reasoning and Writing). For most students, this is the first college course they take centered around mathematical proofs, which can be difficult to adjust to when you are used to standard calculations and derivations. In order to help students on this journey, I spent a large portion of my time as a TA hosting office hours and exam review sessions. In addition to meeting with students, I also wrote solutions to homework assignments and graded homework rewrites.

Throughout my experience as a UTA, one of the biggest things I learned was about thoroughness. In writing solutions to the problem sets, I had to ensure not only that the answers were correct, but also that they were comprehensible and useful to anyone trying to learn from them. Thus, I had to write out every step in detail where I would usually make bigger jumps, expecting the teacher to follow my work. After becoming a UTA, I made an effort to do my homework and take my exams as if teaching the reader in all of my courses. In doing this, I was able to make all of my assignments clearer and catch quite a few errors.

The most important thing I learned as a part of the UTA program was the difference between teaching a student and helping a student get the answer. As someone who cares about both the subject matter and the student learning it, it is easy to guide the student along a direct pathway to the answer. After all, you want to see the student succeed for their sake, and you want to see tangible results for your own. It is also an easy habit to fall into because it can be much faster, and when you only have one hour to help students with multiple problems, time is of the essence. In addition, because the education system prioritizes correctness so highly,

students will frequently be more focused on getting the right answer as opposed to learning the material, and with little teaching experience, it is easy to follow their lead.

However, this is not the best way to help a student learn, and it is important to push students to develop the ability to find the “next steps” of a problem on their own. Towards the end of the semester, I realized how frequently I did this and started making strides to help students learn, not just give them the answer. For example, I would ask what they think they should do in a problem or remind them of what assumptions they are allowed to make instead of telling them what to do or what approach they should take. In the future, I will consider adding an additional office hour or redirect some of my time in office hours towards teaching material only, outside of the context of a homework assignment. This will reframe the focus back onto learning and away from just finding the answer.

As a whole, I would absolutely recommend this program to another student (I already have). The hours are extremely flexible, so it is possible to fit into every schedule. In addition, when students do not show up for calculus tutoring or office hours, you get paid hourly to work on your homework. Finally, and most importantly, you get experience helping other students with math, so for anyone looking to become a STEM educator like me, it is the perfect part-time job as a college student.