

## Advice for a First Year Graduate Student

- Make friends. Talk to people.
  - *Having a village is crucial. You WILL need help. Having people who know you and want to help you will make all the difference. I used to sit in the lounge confusedly trying to do analysis, and people just offered to help left and right.*
- Nothing is unrecoverable.
  - *This was actually advice I received about a month or two in, from my Real Analysis professor. I was in his office upset because of a quite ugly Midterm I, feeling like I could not come back from it. I did come back from it. You just have to keep moving forward.*
- Don't fixate on memorizing theorems in your Core courses.
  - *Often we found ourselves freaking out about how we might need a theorem and trying to memorize all the conditions. But the best way to learn math is by doing math. We tell our students this in calculus and algebra, but we forget to take our own advice. Do lots of exercises. The theorems will come. You'll use them so much they become natural.*
- You're here because you want to be.
  - *If you feel like you should not be here, see the next bullet. But usually people don't pursue PhD's because they feel like they have to, it's usually because they want to be there for some reason or another. Try to have fun and remember why you chose this path.*
- You're here because you're supposed to be.
  - *You wouldn't be here if you weren't qualified. You are capable. My first semester I was quite convinced that it was a mistake to let me into grad school, and that I wasn't going to make it out. But I proved myself rather quickly once I stopped listening to the voices in my head.*
- Absorb as much math as possible. Work as hard as you can. The grades will follow.
  - *I know this one is hard to hear and hard to listen to, especially if you're coming straight from undergrad. Two separate topology professors told me this and I still was panicking about scores. But genuinely, when I focused less on scores, and more on what was happening in my brain, I actually started to perform better in my classes. Your grades do matter (if you want to keep your GA-ship) but your emphasis should be on the math.*
- As far as "working as hard as you can" goes, turning in a partial homework or a (slightly) late homework is better than turning in no homework at all.
  - *Turn in your homework! Turn in as many exactly on time as you can! If you absolutely can't turn it in on time...turn it in as soon as you can. The only way to learn math is to DO MATH...which means doing your homework.*

- Get to campus early.
  - *If you can stomach it, the morning is the best time to be on campus. It's quiet. You'll often have your office (and sometimes the whole building) to yourself.*
- Go to office hours.
  - *Your professors want to help (well, most of them). They want you to ask questions. They want you to learn. Take advantage of that.*
- Work together.
  - *Do enough math on your own that you can produce independent math on your tests. But there is nothing wrong with asking for help from a classmate. You're in this together!*
- Take care of yourself.
  - *Find a hobby. Find a local coffee shop, bar, climbing gym, etc that you can call home.*