

How to Ace a College Math Class
(From an ADHD math grad student who used to hate math)

A major part of success in math classes depends on knowing how to play the game. Your odds are defined by how you approach the textbook, homework assignments, and studying for tests and quizzes. Doing your homework and showing up to lectures will only take you so far.

The textbook is everything. Lectures are just for organizing content you've learned from the textbook. Recitations are for clarifying topics and going over difficult problems. You won't get nearly as much out of lectures if you haven't read each section of the textbook BEFORE your professor goes over them. I like to set aside separate chunks of "textbook time" and "homework time," and I weigh them with equal importance. While reading, take concise notes that include just enough detail for you to understand them later on. Formal theorems and proofs should be first copied by hand, then summarized in your own words. When you reach a worked example in the text, try to work it out yourself first before copying the steps. Pay close attention to HOW definitions and theorems are applied, as the patterns of logic that are presented in the textbook problems will be applicable to the more complicated problems you encounter in your homework, quizzes, and tests. If you don't understand a topic after you've read the corresponding textbook section and gone to the lecture on it, then bring it up in recitation or go to office hours with either me or your professor.

I'll admit, I have a tendency to procrastinate. But in math classes in particular, giving yourself enough time is vital. Math homework, just like essays for your humanities classes, should be done in multiple drafts. Do an initial pass over the problems when you first get a homework assignment. Solve the problems you're confident about. For the problems that you struggle with, consider *why* you're having trouble. If you feel like you don't know the necessary definitions and theorems, read back through your notes on the textbook. If you understand the general topic, but can't figure out a strategy to attack the problem itself, work back through related problems in the textbook. Take a little time every day to keep working through problems until they're all done. At any point in this process, if you need help, you can always ask questions in recitation or go to office hours with myself or your professor.

When a test is coming up, start the process of studying at least two weeks in advance. This will give you time to complete the two absolutely necessary stages of studying for a math exam: creating an outline and reworking problems. The former just means going through all of your notes from the textbook, lectures, and recitation and consolidating them by hand into a study guide. Include enough detail so that you would be able to do any of your previous homework problems by looking at only the study guide, without your notes. Even if you never look at the study guide again, the process of creating it will help you to cement your understanding of the material by forcing you to manipulate the content. Next, start reworking problems. Take every homework assignment leading up to the test and redo all of them. I promise it's not as bad as it sounds. After you've created a study guide and spent weeks to months learning the material, the homework won't take you anywhere near as long as it did the first time. Use the study guide sparingly. Try not to let yourself peek at your previous answers until you're done giving each problem a fair shot- but do use your graded homework to see

what you got right or wrong. If there's a problem you still can't figure out at this stage, you should definitely bring it up with me or your professor. By the day of the test, you should feel confident in your ability to solve any of the homework problems from scratch.

Finally- and this applies to all classes- it's important to know how to plan for big events in your social life. At Tulane, most students skipped classes to party for a week straight during Mardi Gras. I also had sorority and fraternity formals that could easily swallow up a weekend. When an event like this was coming up, I'd start getting ahead two weeks in advance. That gave me enough padding to feel comfortable taking time off from working. School is a job, and you have to plan ahead for your "vacation days." Stay on top of your work so that you can relax and have fun. College is your last chance to be a kid. Make the most of it.