
How to Improve Your Grade in a College Math Class

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This is a note I wrote to my calculus students in Fall 2023.

Towards the end of every semester, I have students who tell me they did worse in the class than they were hoping, and is there anything they can do to improve their grade. Unfortunately, by the end of the semester, it's too late. So I am posting this list now, at the beginning of the semester, of things I advise you to do which can improve your grade before the class is over.

It is impossible to follow all of these guidelines perfectly — I certainly didn't when I was a student! But every little bit helps. Of course, some of these items might not work for you as an individual, but hopefully you can find some practices that do work well for you so that you can do your best learning in this course and others.

- This is the most important piece of advice: **get help when you need it**. My job is to use my knowledge and experience to help you learn, and I love that job; but in order to effectively help you, you need to come to me when you're not understanding something or when there's a problem. If you want to ask me about something, you can ask during class, send me an email, or come to my conversation hours (office hours). You can also talk to your classmates or go to the [tutoring center](#). The value of a university education is that you don't have to go it alone — you have a system of classmates, tutors, instructors, and campus resources, all of whom you can draw on as sources of support. You can also get help from videos on the internet or videos provided by your instructor. So know where to go when you need help, and don't hesitate. We are all here for you.

During class

- Attend every day of class unless you are sick or having an emergency.
- Don't be on your phone/tablet/computer except for purposes directly related to the class, like taking notes or using graphing software. I personally find that I can't pay attention at all as soon as I'm going on social media.
- Take notes. Not only will it be useful to refer back to your notes later, but I find it helps me focus in the moment if I am trying to take notes.
- If there is something you are confused about or want to understand better, please raise your hand and ask! (This is an instance of “**get help when you need it**”.) It

can be scary, but I truly believe that when you ask a question it helps everyone in the class learn more. Other students will probably have the same question, and those who don't will still gain a deeper understanding as a result of hearing the question and its answer.

Textbook

- Read the textbook in a timely fashion: read each section within a day or two after the corresponding day of class. You can even start reading it before class.
- Read the textbook in detail, taking notes if you find it helpful. Don't expect to understand everything right away; expect to read some parts of the textbook many times.
- If you stuck on understanding something in the textbook, ask a classmate or your instructor! (This is another instance of “**get help when you need it**”.)

Homework

- Start early, so that if you don't solve a problem right away then you can return to it another time. (This is one that I'm pretty bad at, but it makes the homework far less stressful!)
- Work with your classmates! More heads solving a hard problem are more likely to succeed. Plus, it's more fun to do math with others than by yourself. Find people in the class who you can meet with regularly to work on homework together.
- Take organized notes on each problem indicating the steps of your solution. When you are returning to these topics for further study, you will be glad you have the complete solution to refer to.
- Try not to be discouraged if you don't get a problem right away. Math is hard, and some problems may require more time to think about it and try different things.
- If you are truly stuck on a problem, **ask for help** without hesitation! Talk to a classmate or your instructor. (This is another instance of “**get help when you need it**”.) Ask for help until you can solve **every problem**.
- When you get the right answer, if you don't really understand how you got it or why it's right, then don't consider the problem finished — ask a classmate or your instructor. (This is another instance of “**get help when you need it**”.)

Before a quiz or test

- Start studying several days before the quiz or test, so that you have enough time to ask for help with things you get stuck on.
- Spend at least a few hours studying for a test (less time for a quiz).

- Focus on understanding, not just memorizing.
- Study by rereading your notes from class.
- Study by rereading the textbook.
- Study by rereading your notes from solving the homework problems.
- Study by doing more practice problems or redoing the harder homework problems.
- Try various kinds of study techniques, like making flashcards or working practice problems, and **see what works best for you**.
- Throughout your studying, keep a list of the topics or types of problems that you have more trouble understanding, so that you can focus more of your attention on those. Ask a classmate or ask your instructor about those topics or problems. (This is another instance of “**get help when you need it**”.)
- Follow advice for test prep from [pages like this one](#).

On the day of a quiz or test

- Before the quiz or test, spend some time getting yourself into a relaxed and focused state of mind. Your emotional state during a test can affect your performance as much as your studying.
- Spend some time thinking about each problem and trying to understand it, rather than just relying on a memorized procedure.
- Don't spend a lot of time on a problem you don't know how to do until after you've finished the ones that you do know how to do.
- Show every step of your reasoning in a way that is easy to follow for your instructor reading it. You are graded on the steps of your solution, not just on the final answer.
- During the test, if you feel your mind go completely blank, or if you find yourself forgetting things you would normally know, or you feel extremely panicked, then maybe you get test anxiety. Talk to your instructor about it, look at [a page like this one](#) with tips on handling test anxiety, or [schedule an intake appointment with OSD](#) to see what accommodations you might need. A test is supposed to accurately assess your knowledge, and you deserve whatever tools you need to make sure anxiety isn't getting in the way of that.

After a quiz or test is handed back

- Carefully read your instructor's feedback on your test, and try to understand it. If you aren't understanding one or more of the instructor's written remarks, then go ask them to clarify.

- Carefully read the solutions posted by your instructor, and try to understand them. If there is anything you get stuck on, ask a classmate or the instructor.
- Using the instructor's feedback and posted solutions, learn how to completely solve any problems you missed points on. If you are still stuck, ask a classmate or the instructor.

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