

The Ten Commandments For Success In A Mathematics Course

1. Thou shalt read thy text before and after class

Try to learn as much as you can on your own before the lecture. Familiarize yourself with the concepts. Be prepared to ask specific questions during class. After class, review and study the concepts. Study the examples carefully. Ask yourself: What is the objective for this problem? What procedure will be used to solve the problem? What is being done in each step and why?

2. Thou shalt attend Thy class

Attend class EVERY day. My role as an instructor is to present the material, serve as a model, answer questions, and guide your learning in order to provide you with the best possible opportunity to be successful. If you are not in class, I can't help you! There are often issues discussed in class that are not mentioned in the text. If you must miss class, make arrangements with a classmate to get a copy of the notes for that day and to report any special announcements. Check the web site for handouts and assignments.

3. Thou shalt be alert and participate

Take careful notes and watch how the examples are done. If you have a hard time taking notes and absorbing the discussion simultaneously, try taking fewer notes and concentrate on listening to and understanding the lectures. Contribute to discussions and any group work. Share your ideas and listen to those of others in class. Remember that mistakes are as much a part of learning as successes; don't be ashamed to give an answer even if it is wrong, and respect the mistakes of others.

4. Thou shalt question THY PROFESSOR

If you don't understand something, ask! Most likely someone else in class has the same question. There are no "dumb questions" in my classroom; every question is an opportunity for learning.

5. Thou shalt HONOR AVAILABLE office hours

I generally do not take class time to answer homework questions. If you have questions on any homework problems or need some additional help, come in and see me. That's what my office hours are for! Or, just come by to say hello. It helps me to get to know you as an individual rather than just a face in class.

6. Thou shalt do thy homework

Mathematics is learned mainly through practice. Do EVERY homework problem, and be sure you understand each problem well enough to solve it correctly without assistance. As you do each homework problem, ask yourself these questions: WHICH concept or skill is used to solve this problem? WHAT aspect of that concept is this problem trying to illustrate or teach me? HOW would I know to use this particular concept or skill just by looking at the problem? Write your solutions carefully. Use your homework as an opportunity to practice writing your solutions clearly in an organized manner similar to how I do it in class. CHECK YOUR ANSWERS with those shown in the back of the book. If you did not arrive at the correct solution, try the problem again until you find your mistake and can work the entire problem correctly and without help. The answer itself is not the most important issue; what is important is that you LEARN THE CONCEPTS behind the problem and are able to apply those concepts in solving the problem. THINK about what you are doing for each problem and why. Any problem assigned may appear on the exam, or a problem that is similar. This includes the hard ones!

7. Thou shalt not covet thy Solutions Manual

If you have a Student's Solutions Manual, my advice is to use it SPARINGLY. It is easy to "abuse" this manual by referring to it too frequently and too prematurely. If you find yourself referring to the manual for more than 10% of your homework, or referring to it too quickly on a problem, you are probably abusing it.

8. Thou shalt MEDITATE ON THY LEARNING

You should be spending at least 2 hours per week outside of class time studying for each hour spent in class. Prepare for exams in advance. Review as often as possible. Concentrate on understanding WHY things work, not just HOW they work. Expect some problems on the exam that are NOT identical to those assigned as homework. A primary goal of the learning process is to apply what you have learned to a problem that is slightly new or different. As you study, ask yourself, "How could this problem be asked in a different way? What additional questions could be asked about this problem?" The best way to prepare for these types of exam questions is to thoroughly understand the concepts or techniques themselves. In reviewing for exams, consider how concepts interrelate and work together. Even though you have learned concepts individually (section by section), the exams may have questions that require you to combine more than one concept from different sections or chapters. Study for the final throughout the semester. Spend a little time each week reviewing previous material. Use index cards to make a "review set" for the entire course. For each type of problem in each section, write a sample problem on one side of the card (including directions) and the solution and answer on the back. Continually shuffle your cards and review them each week.

9. Thou shalt study WITH THY NEIGHBOR

Form a study group with other students from class. Try to meet on a regular basis (at least once a week) to discuss homework assignments and study for exams. There are a number of nice meeting areas on campus, or you can meet at a local coffee shop.

10. Thou shalt make use of additional resources

There are a number of additional resources that you can take advantage of to get help or to supplement the lectures in class, such as the Math Lab (2601 and 3300), Library, Tutorial Center and my website. Come by my office for more information.