

STUDYING

Why do homework? Although it is true that the homework assignments are only 10% of your final grade, the main reason to do homework is in order to master the skills necessary to work the problems on the tests. To master these skills, you must be able to work the homework problems. In fact, many, if not all of you, should probably do **more** homework than what I will assign. I am trying to keep the assignments manageable since you will generally have only one night to complete them and turn them in. Since the Homework #1 assignment will be every other odd problem, you can gain more benefit by also doing the rest of the odd problems either immediately or later on as a review. (Odd answers are given in the back of the book so that you can check yourself.) Of course, an added benefit for doing all the assignments is that it qualifies you to take a Retake on a test if you do not do well!

Please be aware that because of time constraints that when a homework assignment is checked, we probably will not be able to check details of your work. However, when I give quizzes, since they will contain just a few problems, we will try to give you more detailed feedback on your work. Pay close attention to things that you need to correct, whether it has caused an incorrect answer or is a matter of incorrect procedure.

Do not make the mistake that some have: Terms may sound familiar from high school or a previous course, but do not jump to the conclusion that you are a master of the skills involved. If you expect to do well in this course, **regular study is a must**. You must keep up with the homework assignments as they are given. Unless you are a genius or already know the material in this course now, it is not possible to study only immediately before the test and do well. When assignments are given, make sure that you have tried your best to do the problems **before** the next class period. You may find it difficult to read math books, but remember that there are many useful examples that can be referred to. If you get stuck on one problem, try another. For example, don't conclude that if you can't do #1, then you can't do #21. Each assignment may contain different concepts, so some problems may be easier to grasp than others. By trying to do at least a good sampling of the problems before the next class, you will be able to ask specific questions which can be answered without wasting time that could be spent on other topics. Generally, I will begin each class by asking for questions over the homework. **DO NOT HESITATE TO ASK QUESTIONS!** If nobody asks questions, I **assume** that **EVERYONE UNDERSTANDS** and I will charge on to new material. Although we will sometimes come back to previous assignments, I will usually only ask for questions over an assignment the next class day.

In learning the material, you must understand the various procedures and ideas required to work the problems. Merely memorizing how to work the problems will probably result in confusion and poor success in this course. When new material is covered, **do not hesitate to ask questions** in class. In this way you can clarify the concepts and procedures involved **before** you attempt to do the problems on your own. Sometimes when new material is presented, you initially may only be able to work the problems simply by following the procedure demonstrated in class. But to do well, you need to understand **why** the procedure works. **It may be necessary to work the same problems more than once**, especially if the problem was missed on the first try. Repetition is one of the best tools that you have toward learning new material, so several days after an assignment has been completed, pick a few of the problems and rework them (from scratch). If you are still having trouble, then repeat this procedure until they are fully understood. One student that followed this procedure went from having to drop the course because of failing grades to making a B. She did this by working **every** homework assignment **3** times.

You should figure an **average** of 2 to 3 hours outside of class for every hour in class. The person that gets it quickly will spend less, so if you have trouble with math, you may have to spend more if you expect to do well in this course.

PREPARING FOR TESTS

Remember that you will be given all the types of problems covered. They may not be in the same order as covered in class. You may find it **helpful** to make up a **sampling** of the different types of problems **as** you are doing the individual assignments. If you do this on index cards with problem instructions and problem on the front, and the answer written on the back, then you can "mix them up" and work the problems as if it were a test. This means working the problems without notes, or your tutor or friend there to coach you along, or getting the wrong answer and reworking until you finally get it right. This will give you a fair idea as to how prepared you are for the test. If you have a study buddy, make up tests for each other in a similar way.

When we have a time for **test review**, this is a time for **YOU TO ASK QUESTIONS, NOT FOR ME TO TRY TO RE-LECTURE OVER SEVERAL WEEKS OF WORK!!!!** Therefore, **COME PREPARED TO ASK!**

CLASS TIME

Take full advantage of the time that you have in class. **STAY AWAKE! TAKE NOTES. ASK QUESTIONS.** As I tell most classes the first day: “I am like a freight train. If there is no stop signal, I am going to lecture at my speed. If you don’t understand and you don’t ask questions, that is your fault, **NOT MINE!**” I rarely mind slowing down, but I won’t if I don’t know that you are lost.

When problems are given to try in class, try your best to work them. Whatever you can figure out correctly on your own will stick with you better than just following me through each step.

DON’T BE AFRAID TO MAKE MISTAKES IN CLASS! This includes questions and answers. There are no “dumb questions or answers” in class. That is the way to learn why certain things that you *want* to do just are not correct. The idea is to have class work and homework not only teach you the correct things to do, but also teach you the things you should **not** do!

Make a special note of things that I point out as common but serious errors. Try your best to avoid these. When a test is returned to you, make it a learning experience. In particular, if there is a “NO!” or VSE (Very Serious Error) note by a step in a problem, figure out what the error was so that you hopefully won’t repeat it in the future.