MATH 1431–TIPS FOR SUCCESS

Here are some tips that should help you succeed in Math 1431. I might add to these throughout the semester, so check this page more than once!

- **Hit the Ground Running:** The first two weeks there is the Placement Exam—which has the value of a test, the Practice Test—which has the value of an online quiz, and the first online quiz! None of these are very hard, but delay is deadly, especially since you’ve got all these other courses to deal with.

  The Placement Exam is way easier than the other tests, so getting a low score on it is bad news. Get started and get it out of the way as soon as possible.

  The right order to do things is to first take the Practice Test–this helps to show you what you might need to review for the Placement Exam, then take the Placement Exam.

- **Online Quizes:** You get 20 tries to pass each online quiz. Hopefully, you will never need all 20! So here is a good tip. As SOON as an online quiz is available get one and print it out. Even if we haven’t covered the material yet in class!

  Use this as a study guide along with the text to prepare for a real try at passing the quiz. The next time you try the quiz, it will have slightly different problems. But each version of the quiz covers the same skill sets. So knowing first what we will expect you to achieve is a good study aid.

  Also save these quiz copies to use as a study/review guide for the test and final exam. At the end of the course your collection of quizes will give a very nice synopsis of the skills you need. They won’t have everything, but they will give you a very good start.

- **Practice, practice, practice!** If you wanted to run a marathon, would you go out and run one mile and say, “Ok, now I know how to run”? Would you learn to drive a car by going around the block once and then declare yourself ready for a Houston freeway at rush hour?

  Yet this is the attitude that many calculus students take. As soon as they have figured out how to do one or two prolems, they think that they are done. Guess what? On the test, as soon as they finish one problem, just like the runner after a mile, they look up and think: “Holy shit, I’m supposed to do 25.2 more of these?”

  The practice of doing more problems than the very minimum needed to understand, will make you faster, less likely to get flustered during the test, and give you test endurance.
The syllabus lists a lot of problems. You might not need to write out solutions to all of these, there are only so many hours in the day, but I recommend at least reading every problem and thinking about how you would do it in your head.

Just like practicing a foreign language (calculus IS a foreign language!), this will hardwire your brain and make you more fluent in calculus-speak. Also, like all languages, the more you practice, the more you retain. Many students that only do the minimum amount of work, find that later in college when they need calculus for their other courses that they have forgotten everything and have to go through the painful process of re-learning calculus.

• Find a study buddy. Nothing is better than trying to explain a problem to another person as a way to discover if you really understand what you are doing. Also two heads are better than one: if you are stuck on something your study buddy might have it figured out. A study buddy can keep you from spending too much time spinning your wheels on stuck on a single problem.

  You want someone at about your level. The class genius can be intimidating and often won’t understand what you don’t get. Also, they can convince you that you “get it” when you really need to struggle a bit first. Someone who is struggling way more than you can hold you back.

• Know when to move on to a new problem. Not every problem or every skill in the book is needed, or important. In my lectures I’ll try to give you a sense of the things that you really need to get in order to advance to the next material as well as the things that are nice to know if you want a deeper understanding, but are not really essential.

  This should help you recognize the problems/skills that you really need to move on versus those that are nice to know. Don’t fall behind the main flow of ideas because you are spending too much time on things that are not vital. Also, often if you come back to things a bit later they will suddenly look much easier.