The best way to learn mathematics is to do mathematics. Watching someone else who knows how to do a problem can give you a helpful idea of what to do, but often it merely gives you the illusion that you know what to do. You must engage in the material yourself in order to actually understand and retain the concepts. Memorizing ways to do certain problems is actually a much more difficult route than really making sure you understand the material so that you can apply your knowledge to new problems in new settings.

Remember, this is a four-credit class, so you should expect to spend around eight hours outside of class doing work for the course—be honest with yourself about how much focused time you're actually spending on calculus. Below are some suggestions for how to learn calculus well.

- Before coming to class, do the Part I assignment and try to get a basic understanding of the main ideas we'll be discussing.
- Come to class and take notes carefully.
- Take advantage of the time we spend in class working in groups—this is an important chance for you to practice the material yourself.
- Ask questions for clarification.
- After class, read through your notes carefully. Try to do related examples in the resource textbooks listed on the syllabus) on your own; then compare your work with what was done in class/in the text. Again, just looking through someone else's steps will not cause you to be able to do the problems yourself.
- Once you have reviewed and worked through the examples, complete the WeBWorK problems and practice odd problems from the textbook.
- Start the problems on the written homework. While it may seem like doing all of the above things will take a lot more time than just doing the problems to turn in, each one of them will contribute to your ability to do the problems that you need to turn in and make those problems go much more quickly. When you understand the material, doing the homework can be much faster.
- When you are stuck on a problem, talk to your professor, a classmate, or a teaching assistant. Do not expect the person you ask for help to tell you exactly how to do the problem; instead, expect a conversation about the problem that helps you understand better what the question is asking and how you can approach the question. Showing someone exactly how to do a problem does not help the person think through the concepts necessary for truly understanding the material, so the next time the person has a similar problem, that person will still not be confident in his/her ability to work on the problem (remember this when you're helping other students, too!).
- Remember that there are many ways you can get help:
  - talking to classmates
  - going to Calculus@Night—especially with other classmates (the times and location for Calculus@Night are posted on the website and are on your syllabus if you've forgotten when they are)
  - going to your professor's office hours (also posted on the website) with specific questions or making appointments as needed
  - looking at other textbooks and online resources for help (but do not look at solutions to homework problems if you find them on the internet or in another textbook)

- requesting a tutor from the Center for Student Success (this option should only be taken when you've faithfully tried the previous options and still need more assistance).