### AP Calculus Survival Guide - 101

For most of you, AP Calculus will be the hardest math class you have ever taken. It is equivalent of taking two semesters of college level Calculus. You can't compare your performance in this class with how you preformed in other math classes, which were not AP or college level math courses. Many students will need to learn how to study for this class. Last year 97% of the students passed the AP AB/BC Calculus Test and earned college credit. Outlined below are some suggestions to help you along your journey.

# Key Points:

- You will get out of class what you put into the class. Expect going into the class that it will require hard work and be willing to put in that work.
- Memorize early and often. The whole class is cumulative. You should work on memorizing nightly, not trying to put it off until the night before a quiz or test. Cramming the night before a test will not work for this class.
- This class will require you to understand the concepts in addition to knowing how to do the math.
- "To learn math you must do math". The best way to study as you get closer to a quiz/test is to practice working out problems (working problems, not just looking over work).
- It is very easy to get behind quick if you don't resolve your questions daily. Ask for help. Don't think you have to do it all along. Come to tutoring, seek out study groups, use the internet, etc.

# Homework:

- The key to your success in this class is completing homework regularly, well, and efficiently.
- Take pride in your homework assignments. Show all work. Get in the habit of taking time to use all the correct notation, labeling steps, etc.
- Nightly homework shouldn't just be about trying to finish the assignment, but should include some nightly studying time.
- Spend time each night reviewing the concepts taught that day. If needed, go online a watch extra videos or view other examples. Two excellent websites are patrickjmt (videos) and Paul's Online Notes (for examples).
- Remember, ultimately, you are responsible for demonstrating mastery on all the concepts covered within a homework assignment.

### Notes:

- Be sure to take good, detailed notes. It may be helpful to print out the note's template before class.
- Keep your notes organized.
- Review notes nightly and make them a regular reference as part of your nightly studying. Go back and highlight important parts and add in extra explanations, if needed.
- Get a different color sheet of paper for each unit and keep a running list of important formulas and definitions for that unit. Review nightly. Remember to memorize early and often.
- Another effective method would be to make flashcards for each unit and study throughout the unit.

Quiz/Test:

- The more time you spend on your nightly studying, the less stressed and more prepared you'll be leading up to the test.
- This class will require you to apply your knowledge learned during the unit on quizzes and test to a variety of problems and not just regurgitate the examples from your notes. Therefore, the days leading up to the test you should not just read over your notes to study.
- Skimming your notes is a good place to start, but as the test gets closer, you should work a variety of practice problems (old tests, homework examples, warm ups, internet problems, etc). It's ok to rework the same problem several times leading up to the test. There is a big difference between reworking a problem from scratch and just looking over a worked out solution. Don't fool yourself into thinking that rereading a worked problem is studying.
- If you are still trying to learn or memorize important information the night before the test, chances are you will not have a solid understanding of the concept and will not be able to apply it on the test.
- Attend as many tutoring sessions throughout the unit as you can. If you have trouble on a nightly homework, come in to tutoring the next morning to get your questions answers. Don't wait until the very last tutoring session before the test and try to get all your questions answered at once. It is very easy to get behind quick if you don't resolve your questions daily.

# Final thoughts:

AP Calculus is a challenging class, but it is not impossible. Remember you will get out of the class what you put into it. Don't feel you have to struggle alone. Please take advantage of all the resources available. Remember part of the fun of Calculus will be the journey (struggle and challenge) throughout the year. The habits you form in this class should help you be successful in others AP class and in college.