

AP Calculus BC

Course Overview: AP Calculus BC focuses on students' understanding of calculus concepts and provides experience with methods and applications. Through the use of big ideas of calculus (e.g., modeling change, approximation and limits, and analysis of functions), the course becomes a cohesive whole, rather than a collection of unrelated topics. AP Calculus BC requires students to use definitions and theorems to build arguments and justify conclusions.

The course features a multi-representational approach to calculus, with concepts, results, and problems expressed graphically, numerically, analytically, and verbally. Exploring connections among these representations builds understanding of how calculus applies limits to develop important ideas, definitions, formulas, and theorems. A sustained emphasis on clear communication of methods, reasoning, justifications, and conclusions is essential. Students will use a graphing calculator to reinforce relationships among functions, to confirm written work, to implement experimentation, and to assist in interpreting results.

At the end of this school year, AP Calculus BC students should successfully be able to:

- Continue graphing and finding key features of functions in the Library of Functions
- Continue to understand and apply trigonometry and inverse trigonometry concepts
- Understand how and when to use the Chain Rule
- Recognize and solve Related Rates problems
- Demonstrate an understanding of and fluency with the Fundamental Theorem of Calculus
- Solve problems involving Volume of Solids
- Represent certain functions as a series
- Apply and solve differential equations
- Know the importance of parametric equations

How to find Success in this Course: Students should engage and participate in the learning that happens each day in class. Be sure to complete assignments on time and ask questions when you don't understand something. It is also important to bring your materials and have good attendance. Rather than memorizing how to solve a problem, try to develop critical thinking skills and focus on the process of solving problems each and every day. This development takes time and soon you will be empowered to solve or have the ability to tackle almost any problem.

Resources for Success in this Course:

James Stewart's Calculus Textbook, 8th Edition Single Variable Calculus, Early Transcendentals
Check Student/Parent Portal for updated grades: parent.gusd.net

Recommended Materials:

- Pencils, pens, and erasers
- Lined and graph paper

- Scientific calculator and Graphing Calculator (suggested model is TI-84 Plus)
- A 3-ring binder to organize your notes, assignments, etc.



CV School Wide Behavior Expectations, Academic Honesty, and Discipline Policies may be found here:

<https://www.gusd.net/domain/1302> or scan the QR Code

CV Policies: School policies are distributed to all families at the beginning of the year, and are also available in the Parent/Student Handbook on the school website:
www.cvhsfalcons.com

PBIS The Falcon Way:



Be Involved: Actively engage in your learning and participate in class.

Be Respectful: Treat your classmates and teachers with respect and kindness.

Be Responsible: You are responsible for your words and actions. Take the time to consider your choices and their consequences.

Be Safe: If you see something out of the ordinary on campus, tell a teacher or adult.

Grading Policy: Student grades are based on their understanding of the AP Calculus BC content standards. Letter grades will be based on the following breakdown:

- A 90% - 100%
- B 80% - 89%
- C 70% - 79%
- D 60% - 69%
- F 59% and below

The AP Calculus BC classes at CV have the following percentage weights to calculate the grades:

Homework*/Classwork 10%

Assessments (including class notes and final exams) 90%

*AP Calculus BC Late Work Policy:

Late assignments will be accepted for partial credit. You may turn in your late assignment the next time we have class. After that, late assignments will not be accepted.

Teacher Information

Mr. Saw

Teacher Philosophy: I believe every student has the ability to learn and be successful in mathematics. Learning is one of the most rewarding experiences in life. I am sure you will find great satisfaction in solving complex problems that you put your sweat and tears into. I hope it will be obvious to you that I love teaching math! I will help you grow and develop yourself to become proficient at tackling almost any problem. However, you must be willing to work at it and have a positive attitude. Please come to class with an open mind and some humility. We will have lots of fun learning about math, and a bit about life.

Best Way to Contact the Teacher: My email address is wsaw@gusd.net
I am here to help you learn and succeed. I can be available outside of class if you need extra help or have questions. Please come and see me.

AP Calculus BC Contract

Student Name (print) _____ period _____

I have read and understand the course requirements for AP Calculus BC. I understand the grading policies, the school's academic honesty policy, the school's electronic device policy and how to be successful in this college-level class. I know that it is important to do my own work, be on time, and to have good attendance. If I have any questions, I can email the teacher.

Student Signature _____ today's date _____

Parent(s)/Guardian(s) Name (print)

Parent(s)/Guardian(s)

Signature _____

Parent(s)/Guardian(s)

email* _____

*Used only if the teacher needs to contact the parent/guardian regarding their student.