

AP Calculus

Class Policies and Procedures
César Chávez Academy High School
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Course Description

This is a college-level course in differential and integral calculus, equivalent to one semester of calculus at most universities. Topics include a review of functions, an introduction to limits and continuity, derivatives and their applications, integrals and their applications, anti-derivatives and the Fundamental Theorem of Calculus, and an introduction to differential equations using slope fields. There is an emphasis on conceptual understanding and working with functions represented graphically, numerically, analytically, and verbally.

Course Objectives

Students should be able to:

- Work with functions represented in a variety of ways: graphical, numerical, analytical, or verbal. Each student should understand the connections among these representations.
- Understand the meaning of the derivative in terms of a rate of change and local linear approximation
- Use derivatives to solve a variety of problems.
- Understand the meaning of the definite integral both as a limit of Riemann sums and as the net accumulation of change
- Use integrals to solve a variety of problems.
- Understand the relationship between the derivative and the definite integral as expressed in both parts of the Fundamental Theorem of Calculus.
- Communicate mathematics both orally and in well-written sentences and explain solutions to problems.
- Model a written description of a physical situation with a function, a differential equation, or an integral.
- Use technology to help solve problems, experiment, interpret results, and verify conclusions.
- Determine the reasonableness of solutions, including sign, size, relative accuracy, and units of measurement.
- Develop an appreciation of calculus as a coherent body of knowledge and as a human accomplishment.

Text

Anton, Howard. Calculus with Analytic Geometry, Fifth Edition. John Wiley & Sons, 2002. ISBN 0-471-38157-8

Major Topics

1. Coordinates, Graph, Lines
2. Functions and Limits
3. Differentiation
4. Applications of Differentiation
5. Integration
6. Applications of the Definite Integral
7. Advanced Topics

Attendance Policy

Consistent attendance is required for this class. Mathematical concepts build upon previous material. Thus, it is essential that each student attend class every day and keep up with all assignments. However, if you are absent from class, it is your responsibility to obtain the assignment, to find out if the homework assignment was collected and/or graded, and to submit the make up assignment for credit. You will be given a reasonable amount of time to make up the work; however, all work must be checked and recorded prior to the test on the missed assignment. If you miss a test or quiz, arrangements to make it up should be made with me the day you return to school. If you schedule a make-up test and fail to show, a half hour of detention must be served before you may reschedule the test to be taken.

Tardies

Arrive to class on time. The school tardy policy will be enforced. Disciplinary consequences will be imposed for each tardy as described in the student code of conduct.

Grading Scale

The grading scale will be as follows:

A	87-100	C	67-76	F	Below 60
B	77-86	D	60-66		

The number of points earned will be recorded for each bellwork, classwork, homework, quiz and test. Daily work will count for 100 points per assignment, meanwhile quizzes will count for approximately 300 points each, and tests will be scored out of 1000 points. The card marking grade will be calculated by adding up the points earned and dividing by the number of points possible. A letter grade will then be assigned according to the aforementioned scale. Each card marking will constitute 40% of the semester grade, and the final exam will account for the last 20%.

Homework

Homework is an important part of your learning process and you can expect to have homework every night. Homework will usually be discussed in class the next school day after it is assigned. Homework will be collected frequently. It will be checked for completeness and effort. **Show all work.**

If you are absent or tardy, **it is YOUR responsibility to ensure that your assignments are submitted.**

Assignments should be completed in pencil. Your name, the date and your hour are to be written in the upper right-hand corner of the page. The assignment title, including the page number and assigned problems, should be written as a heading on the first line. **Homework must be written in pencil.** Homework that is not submitted in pencil will require a rewrite before points will be awarded.

Quizzes and Tests

There will likely be at least 2 assessments during each nine-week period. Partial credit is given on most parts of tests and quizzes where work is required to be shown. **All tests and quizzes must be taken in pencil.**

Tutoring

Please utilize extra help if you need it! I am here to help you be successful! Do not wait until you make a poor grade on a test or grading period to ask for help. Tutoring will be available _____.

Teacher Philosophy

Each student is expected to behave in a professional manner. Remember, every student in this room has the right to an education without disruptive influences or distractions of any kind from other students. Furthermore, as a teacher I have the right to teach without the same disruptions or distractions from students.

It is my goal to maintain a classroom atmosphere that is conducive to the study of mathematics, and to explain all concepts to the best of my ability. I can provide the environment and guidance, but I cannot learn for you. **You are responsible for your own learning.**