

Calculus 2

Class Policies and Procedures
César Chávez Academy High School
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Course Description

Calculus 2 is focused on further developing students' understanding of the concepts of Calculus 1 and providing proficiency with its methods and applications. This course will emphasize a multi-representational approach to calculus with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally. The interconnections among these representations are also important and will be emphasized and demonstrated. Calculus 2 can be seen as an extension of Calculus 1 rather than an enhancement. Typical topics require a similar depth of understanding. Both courses are intended to be challenging and demanding. Major concepts and widely applicable methods will be emphasized. Through the use of the unifying themes of derivatives, integrals, limits, approximation, and applications and modeling, Calculus will be seen as a cohesive body of knowledge.

Course Objectives

Students should be able to:

- Differentiate logarithmic, exponential, and inverse trigonometric functions
- Determine the derivative of hyperbolic functions, along with their inverses.
- Integrate hyperbolic and inverse hyperbolic functions.
- Evaluate integrals using various techniques such as: by parts, rationalizing substitutions, trigonometric substitution, partial fraction decomposition, completing the square.
- Evaluate improper integrals
- Identify convergence or divergence of various sequences and series.
- Evaluate certain non-polynomial functions using a Maclaurin or Taylor series.
- Determine the derivative of a power series.
- Compute the integral of power series.
- Analyze conic sections.
- Determine the derivative of a function in polar coordinates.
- Compute the integral of a function in polar coordinates.
- Apply the integral in computing areas and slopes of tangents represented in the polar coordinate system.
- Parameterize curves in order to determine their derivatives.
- Solve differential equations analytically and numerically.
- Utilize techniques from calculus in order to solve problems relating to the multiple fields of Science.

Text

Stewart, James. Calculus: Early Transcendentals, Sixth Edition. Brooks/Cole, 2008. ISBN: 978-0-495-01166-8

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.**