2024 2025 AP CALCULUS BC

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Course description:
AP Calculus BC is designed to be the equivalent to both first and second semester college calculus courses. AP Calculus BC applies the content and skills learned in AP Calculus AB to parametrically defined curves, polar curves, and vector-valued functions; develops additional integration techniques and applications; and introduces the topics of sequences and series.

The course focuses on students' understanding of calculus concepts and provides experience with methods and applications. The course 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. Technology is used regularly to reinforce relationships among functions, to confirm written work, to implement experimentation, and to assist in interpreting results.

This course follows AP Calculus AB in the Honors/Advanced Placement Program in mathematics and earns a weighted grade.

The AP Calculus AB exam for college credit will be administered on ==**Monday, May 12 2025 at 8:00 am.**== This is an optional exam and the course grade is not linked to exam participation.

Estimated curriculum outline. (*Subject to change based on student performance levels.*)

Review Units 1-4:

- Unit 1: Limits, Continuity, and Differentiation
- Unit 2: Applications of Differentiation
- Unit 3: Basic Integration
- Unit 4: Applications of Integration

Unit 5: Exponential and Logarithmic Functions
Unit 6: Advanced Integration
Unit 7: Improper integrals, Sequence and Series
Unit 8: Sequence and Series
Unit 9: Parametric, Polar and Vector Functions

Grading Policy:
9-Week Progress Report Grades:
70% Unit Exams/Projects
10% Homework/Classwork
20% Quizzes

Semester Grade:
80% 18-week grade
20% Final Exam

Student grades are cumulative. The final semester grade is calculated using the 18-week grade weighted at 80% and the final semester exam weighted at 20%.

Parents are encouraged to use Synergy to track their student's daily academic progress. Grades are updated every day.

Grading Scale:
90-100 =A   80-89=B   70-79=C   60-69=D   <60*F

Class Expectations:
BE PROMPT   BE PREPARED   **BE POLITE**   BE POSITIVE

- Have a vision.
- Be a learner, not a finisher.
- Embrace challenges.
- Feed your passion.
- Own your education

Supplies:

3-ring binder (for math use only)
Loose leaf paper
Graph paper
Ruler
Pencils/Eraser/Red pen/Highlighter
TI NspireCX or equivalent graphing calculator

Class Donations: *(very much appreciated)*
Box of Kleenex
College Ruled paper
Graph paper
Dry erase markers

Checking for understanding:
- Daily homework will be assigned.
- Homework on average will require 6 hours of outside the classroom work per week.
- Incomplete work will result in a reduced score.
- Work that is copied from a math application will result in a reduced score.
- Late work is not accepted unless a student has been absent or has discussed extenuating circumstances with the teacher.

Demonstration of Understanding
- Weekly Quizzes will be given on the material covered during the previous week.
- Unit Exams will be given at the end of each unit and will be aligned to the AP Calculus exam. Unit Exams will contain both multiple choice and free response questions and will require students to solve problems both with and without a calculator. The assessments will be cumulative and will contain most missed content from prior exams in addition to current Unit content.
- Students taking exams on the assigned day will earn a 10% addition to their grade if they completed 100% of their unit assignments
- **Unit Exams will NOT be returned for students to keep.** Students will have the opportunity to review graded exams only in class. While reviewing their exams, students may take notes and ask questions about the exam.
- Unit Projects will occasionally be assigned to offer an alternative method of demonstrating knowledge about a topic.

Make-up Work:
It is crucial to a student's success to be in class EVERY day. If an absence is necessary, it is the student's responsibility to arrange to make-up all missed work. All assignments are posted on Google Classroom.
Assignments
- Assignments due on the day a student is absent must be turned in on the day the student returns to class.
- Students are allotted one day per day absent to make up missed assignments.

Quizzes:
- Missed quizzes will be excused to allow students present on quiz day to have timely feedback on their mistakes.

Exams:
- Missed exams must be completed the next class period following the absence or scheduled to be taken in advance of the class testing date.
- Students missing an exam will not be eligible for the 10% added to their exam for 100% completed assignments and may have a different version of the exam.
- Students scheduling an exam early will be eligible for the 10% added to their exam score for 100% completed assignments.
- Missed exams may take up to two weeks to grade,

Extra Help:
In mathematics, the art of asking questions is more valuable than solving problems. ~ Georg Cantor

If you would like additional help or clarification, I encourage you to attend after school tutoring.

PARENT/GUARDIAN SIGNATURE

I have read the syllabus for AP Calculus BC   and understand all of the requirements and expectations contained in the document.

I have a twitter account where I like to post pictures of the amazing work that students have done during class. These pictures are also posted on the school's twitter feed.

☐ I agree to allow my student's picture to be posted on the class and school twitter feeds

☐ I prefer that my student's picture not be posted on the class and school twitter feeds

Parent/Guardian (please print)_____

Parent/Guardian (signature)_____

Email address:_____

STUDENT SIGNATURE:

I have read the syllabus for AP Calculus BC and understand all of the requirements and expectations contained in the document.

Student Name (please print)_____

Student Signature_____