

Course Description

Students in this course will walk in the footsteps of Newton and Leibnitz. An interactive course framework combines with the exciting on-line course delivery to make calculus an adventure. The course includes a study of limits, continuity, differentiation, integration, differential equations, and the applications of derivatives and integrals.

An Advanced Placement (AP) course in calculus consists of a full high school year of work that is comparable to calculus courses in colleges and universities. It is expected that students who take an AP course in calculus will seek college credit, college placement, or both, from institutions of higher learning.

This is a yearlong course consisting of 10 units. Upon successful completion students will receive 1 credit towards high school graduation.

Course Overview

Semester 1

- Limits and Continuity
- Differentiation: Definition and Fundamental Properties
- Differentiation: Composite, Implicit, and Inverse Functions
- Contextual Applications of Differentiation
- Analytical Applications of Differentiation

Semester 2

- Integration and Accumulation of Change
- Differential Equations
- Applications of Integration
- Parametric, Polar, and Vector-Valued Equations
- Infinite Sequences and Series

Required Course Materials

Please access the list of course materials from the OC Online book ordering system and order your materials as soon as possible. Oftentimes, course materials are on back order and you may experience a delay in receiving them, causing students to fall behind in their online coursework. When ordering used or rented materials, be careful that online access codes are also current.

Methods of Evaluation

Students will demonstrate mastery through the following formative and summative assessments:

- 40% Assignments
- 10% Participation (Discussion Posts, Synchronous Sessions)
- 10% Quizzes
- 25% Final Exam
- 15% Unit Tests

Additional Course Information

Detailed information regarding OC Online policies on proctored final exams, grading policy, late/missing assignment policy, weekly live sessions, course expectations, and additional school policies can be found on the website.