

# AP CALCULUS

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Calculus AB is the first year of AP Calculus. The course consists of a full year of work that is comparable to Calculus I (semester course) in colleges and universities. Many students obtain college credit, college placement, or both from this course. Most colleges provide statements regarding their AP policies in their catalogs and on their web sites.

Success in AP Calculus is closely tied to the preparation students have had in courses leading up to their AP course. Students need to have a full and complete understanding of all topics in Algebra I, Geometry, Algebra II and Pre-Calculus. An A or a high B grade in all these classes is **highly** recommended.

AP Calculus is a fast-paced math class. Students are expected to spend approximately one-hour a night on homework, and assignments are given every night. Tests and quizzes are approximately 75 - 80% of the overall grade.

The following is an outline of the topics covered in the AP Calculus course:

- I. Functions, Graphs, and Limits**
  - a. Analysis of graphs
  - b. Limits of functions (including one-sided limits)
  - c. Asymptotic and unbounded behavior
  - d. Continuity as a property of functions
  
- II. Derivatives**
  - a. Concept of the derivative
  - b. Derivative at a point
  - c. Derivative as a function
  - d. Second derivatives
  - e. Applications of derivatives
  - f. Computation of derivatives
  
- III. Integrals**
  - a. Interpretation and properties of definite integrals
  - b. Applications of integrals
  - c. Fundamental theorem of Calculus
  - d. Techniques of antidifferentiation
  - e. Applications of antidifferentiation
  - f. Numerical approximations to definite integrals

If you have any other questions, please do not hesitate to contact me. E-mail is the best method. (See address above). Further information about the AP Calculus course can also be obtained from the College Board web site at [apcentral.collegeboard.com](http://apcentral.collegeboard.com).

Thank you.