



John H. Reagan High School

Enabling our students to realize great heights

713-861-5694
www.jhreagan.org

AP Calculus AB Course Syllabus 2009 – 2010

Instructor: J. Derry

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Room: A173

Tutorials: M-Tu-W-Th 3:45 – 4:30 P.M., A-Lunch or by appointment

Conference: W-F 12:40 – 2:05 or by appointment

Course Overview

AP Calculus AB is primarily concerned with developing the students' understanding of the concepts of calculus and providing experience with its methods and applications. The courses emphasize a multi-representational approach to calculus, with concepts, results, and problems being expressed graphically, numerically, analytically, and verbally

General Expectations

Students will...

arrive to class promptly and prepared with materials
exhibit respect and promote a positive environment
remain enrolled in the course for the entire school year

turn in assignments complete and on time
actively participate in their learning opportunities
follow HISD/Reagan HS policies and rules

Required Texts/Materials

Larson, Hostetler, Edwards; Calculus of a Single Variable; 7th Edition; Houghton Mifflin: Boston New York; 2002
College-Ruled Notebook Paper Course Folder/Binder Pencil/Eraser TI-89 Graphing Calculator*

*It is best that students have their own graphing calculator. However, one may be checked out if necessary.

Course Outline

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. Interpretations 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

A detailed outline of course topics is available from the website:

www.collegeboard.com/student/index.html?student

Students are strongly encouraged to register with this resource.

Grading

Criteria: 40% Class Work – 60% Assessments (Quizzes 10%, Tests 50%)

Late assignments are penalized 25 points per school day from their due date.

Test corrections provide an opportunity for students to earn a passing test grade.

Acknowledgement

We, the undersigned, have read, understand and will comply with all expectations set forth in this syllabus.

Student Name (Please Print)

Student Signature (Date)

Parent/Guardian Signature (Date)