

Anacortes High School  
Math Department  
AP<sup>®</sup> Calculus (AB) Syllabus



**Course Name:** AP<sup>®</sup> Calculus (AB)

**Course Description:**

This course is a college-level Calculus course. It is designed to prepare students for the Advanced Placement Calculus (AB) examination. Topics studied include limits, continuity, exponential, logarithmic and trigonometric functions, differentiation and integration. Calculus is recommended for any student who plans to study engineering, sciences, or mathematics in college. During the 2<sup>nd</sup> semester of the 2008-09 school year (and every other year following), AP Calculus students are encouraged to also enroll in AP Physics(C) – Mechanics as a means to apply the calculus they are learning AND earn another AP credit. Students who enroll in AP Calculus are expected to take the AP exam during the spring.

**Prerequisites:**

Successful completion of Pre-calculus & Trigonometry

**Course Resources:**

Foerster, Paul A. *Calculus: Concepts and Applications*, Berkeley, CA: Key Curriculum Press, 1998.

<http://jholtgeerts.edublogs.org/>

**Required Materials:**

Texas Instruments graphing calculator, preferably a TI-83/84 (best) through the TI-89 (O.K.) series.

**Recommend Materials:**

Notebook

**Course Outline/Instructional Units**

Unit 1: Overview of Limits, Derivatives, & Integrals

Unit 2: Properties of Limits

Unit 3: Derivatives, Antiderivatives, & Indefinite Integrals

***Midterm #1***

Unit 4: Calculus of Products, Quotients, & Parametric Functions

Unit 5: Definite & Indefinite Integrals

Unit 6: Calculus of Exponential & Logarithmic Functions

***Midterm #2***

Unit 7: Growth & Decay (Slope Fields)

Unit 8: Area of Planes & Volume of Solid Figures

Unit 9: Improper Integrals, Related Rates

***Midterm #3***

Extensive Review for AP Exam

Take the AP Exam

Introduction to Systems Thinking with STELLA<sup>®</sup>

***Midterm #4***

## Major Assessments:

Midterms at the end of each quarter and the AP exam itself on Wednesday, May 7<sup>th</sup>.

## Attributes of Proficiency

**Basic.** Denotes partial mastery of knowledge and skills associated with the standard.

**Proficient.** Represents solid performance for each standard assessed. Students reaching this level have demonstrated competency of problems and apply problem solving strategies to real-world situations.

**Advanced.** Denotes excellence in performance of each standard being assessed. At this level, a student can demonstrate a strong understanding and application of real-world situations. In addition; students can evaluate and create new learning.

## Anacortes High School Grading Scale

Letter Grade	Percent	Proficiency Level
A	93% and above	Advanced
A-	90% - 92%	
B+	88% - 89%	Proficient
B	83% - 87%	
B-	80% - 82%	
C+	78% - 79%	Basic
C	73% - 77%	
C-	70% - 72%	
D+	68% - 69%	Not Yet
D	60% - 67%	
F	59% and below	

## Weighted Categories

Category	Percentage of Overall Grade
Chapter Tests	50%
Assignments, Labs, Quizzes, & Journals	30%
Midterms	20%

Tests are given at the end of each chapter. Corrected tests warrant some additional points.

4 Midterm Exams, one at the end of each quarter. These exams will be formatted very much like AP exams.

Daily quizzes will be attached to daily assignments for a total of 15 points. The homework portion is based on completeness and neatness while only the quiz portion is scored on a correct solution and communication.

## **Late Work Policy**

Students taking this course are often very involved with school activities while also enrolled in other college prep courses. Assignments have already been streamlined with this consideration. Therefore, late work is not accepted unless students are absent due to illness or school-related activities. Daily presentations will be posted online if a student is absent, so students are expected to keep up even when absent. Assignments, labs, and journals turned in late will not be accepted. Daily quizzes may be made up outside of class time for students who are absent. Tardy students will receive a zero on that day's quiz. Occasionally, homework problems will be highlighted in advance by Mr. Holtgeerts so that individual students can share their solutions via the document camera. These quality solutions will be posted online and will be worth up to 10 extra points in the assignment category of the grade system.

## **Re-Do Policy**

- Chapter Test corrections must be made up outside of class time. Solutions may be checked according to the teacher's answer key. The deadline for these corrections is always one-week after the original test date. The following sliding scale can be used to improve your original test score:
  - Below 60%, add 6 points to previous score if all corrections are made.
  - 60% - 69%, add 4 points to previous score if all corrections are made.
  - 70% - 79%, add 3 points to previous score if all corrections are made.
  - Above 80%, add 2 points to previous score if all corrections are made.
- Journals can be rewritten to earn a better score, all the way up to 100%.
- Assignments, labs, and midterms cannot be redone.

## **Extra Help**

- Be sure to utilize the teacher website at <http://jholtgeerts.edublogs.org/>
- Mr. Holtgeerts is generally available early on Tuesdays (6:30 a.m.) and any day after school until 4:00.

## **What does it look like to be a successful Calculus student?**

A successful Calculus student is someone who maintains a consistent effort in his/her studies. It is very difficult to take a week off in this class without that lack of participation negatively affecting your grade and level of understanding. Students who spend quality time daily on their assignments are usually the most successful. Also, inquisitive people who think about the applications of what they're learning, even to the point of predicting what is to be taught next, generally manage to gain the best understanding of the content being taught.

**All school policies will be upheld in this class so please read your student handbook.**

**Anacortes High School Academic Dishonesty Policy:** We believe students at AHS are responsible for their own work, created and intended for the particular class in which the student is enrolled and from which the assignment is given. Academic Dishonesty is defined as cheating, plagiarism, collusion, etc. and is contrary to the principles of personal responsibility and integrity. Students who have committed academic dishonesty will be subject to academic sanctions, including denial of credit, removal from the course with a failing grade, and school disciplinary actions.

**Attendance/Tardies:** Per school policy a tardy of more than 10 minutes is considered an absence. Anyone coming late to class (for any reason) must have an admit slip. If a student reaches three tardies the student will be written up. If a student reaches five absences a parent conference will be scheduled to discuss the issue.

**Electronic Devices:** No electronic devices permitted to be seen, heard, or used in any classroom at any time.

## **Contact Information**

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