

AP Calculus A/B  
*H. Lopez Rm C226*

**Contact Information**

The best way to contact me is by e-mail: [h.lopez@ecrchs.net](mailto:h.lopez@ecrchs.net). I also have a web page, where there is a list of the daily assignments, and you may view current grades checking Aeries. The school number is (818) 595-7500, there are no direct lines to the classroom, so I would prefer email.

**Course Description:**

The A.P. Calculus class represents college-level mathematics. By scoring well on the A.P. test (given Wed, May 9, 2012) you will earn college credit. The amount of college credit depends on the university and often, on the score earned. All California Common Core Standards for Calculus will be taught in the class, and many standards from Math Analysis, Trigonometry, and Linear Algebra will be reviewed. Calculus AB is a full-year course in the calculus of functions of a single variable. The course emphasizes a four-step approach to calculus, whereby concepts are presented graphically, numerically, analytically, and verbally. Connections to these approaches are emphasized. Three major themes for this course include the following:

- I. **Functions, Graphs, and Limits**
- Analysis of Graphs
  - Limits of Functions (incl. one-sided limits)
  - Asymptotic and Unbounded Behavior
  - Continuity as a Property of Functions

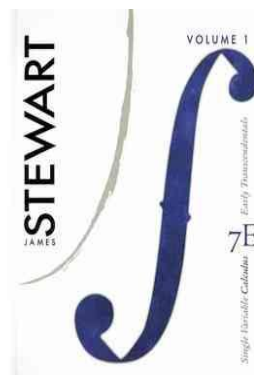
II. **Derivatives**

- Concept of the Derivative
- Derivative at a Point
- Derivative as a Function
- Second Derivatives
- Applications of Derivatives
- Computation of Derivatives

III. **Integrals**

- Interpretations and Properties of Definite Integrals
- Applications of Integrals
- Fundamental Theorem of Calculus
- Techniques of Antidifferentiation
- Applications of Antidifferentiation
- Numerical Approximations to Definite Integrals

Textbook:



*Single Variable Calculus with Vector Functions  
Early Transcendentals – 7th Edition (AP\*  
Edition) by James Stewart*

Calculator:

Graphing Calculator (TI-83/84+ or Silver Edition OR TI-Nspire graphing calculator

recommended). Calculators are required and will be heavily emphasized in class, on assignments, and on assessments (including the AP Exam).

We will cover chapters 1-4 in the fall semester which focus on most of the first two themes. In the spring semester, we will address chapters 5 and 6 and spend a considerable amount of time on preparing for the AP\* Exam. **All students who take this class are encouraged to take the AP\* Exam.** More information about this exam can be found on website below:  
<https://apstudent.collegeboard.org/apcourse/ap-calculus-bc>

### **Webassign**

All students will be given an account on Webassign where they will have to complete online assignments. Many of these assignments will occur over school breaks such as Thanksgiving, Winter Break, and Spring Break. Please see me privately if you have any issues with internet access.

### **Barron's Guides**

The Latest Edition Barron's Guide will be very helpful throughout the year, and used extensively as a text in the spring. Details will be given in class about a group discount. All students in my class are expected to take the A.P. test. The final for the spring semester will be two Saturdays before the AP Test.

**Daily Quizzes:** You will need a composition notebook for daily quizzes. Thought, not a significant part of your grade, they will be very helpful when reviewing for midterm, final, and AP test.

**Quizzes** – given periodically, 20-30 minutes each

**Tests** – Chapter tests are usually worth 100 points. Rubrics are used to give partial credit, so work must be shown completely and neatly. If a student has an excused absence, the test should be taken as soon as possible upon returning to school (7:20 a.m.) Warning: make-up tests are not the same as the original and can be very challenging. Usually 90%-100% are A's, 80%-89% are B's, 70%-79% are C's, and 60-69% are D's, although the scale will be lowered on more challenging tests. (On the actual AP test, it is so challenging that a 70% might earn a 5!)

**Homework** – is assigned daily, checked daily. Plan to spend about 45-60 minutes each night and about 60-90 minutes each weekend.

**Midterm** – will cover chapters 2-3 and given around mid-October

**Final Exam** – one per semester, more details will be given at a later date

### **Grading Scale:**

<b>%</b>	<b>Letter Grade</b>
<b>90-100</b>	<b>A</b>
<b>80-89.99</b>	<b>B</b>
<b>70-79.99</b>	<b>C</b>
<b>50-69.99</b>	<b>D</b>
<b>0-49.99</b>	<b>F</b>

**Work Habits (E/S/U)** – will be determined by students participation in class and completion of their assign on a daily basis.

**Cooperation (E/S/U)** – will be determined by student behavior in class in addition to following all class rules and procedures.

**- - - - - Please complete and return the following tear-off by Thursday, August 27th - - -  
Please only print THIS PAGE and save the document in your files.**

**Student's Name:** \_\_\_\_\_

**Parent's Name:** \_\_\_\_\_

**Parent's E-Mail:** \_\_\_\_\_

**Parent's Signature:** \_\_\_\_\_