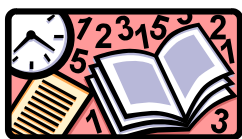


# AP Calculus AB - Fall 2015



Mrs. Walton  
Mr. Fukuman



## Introduction

Welcome to a new school year and the beginning of **AP Calculus AB**. In order for this year to be successful, here is an outline of what is expected of you while you are in this class. This class is a college or university level course and the score you receive on the AP exam can count as credit at some institutions. **The pace and workload of this class will be the same as a college course.** It is imperative that you use your textbook as another resource and you will need to read and understand the language in the textbook. **Our goal is for everyone to pass (score of 3 or higher for most colleges) the AP Exam in May 2016. You will be expected to take the AP exam!!**

## Expectation

We believe that you will all succeed in this course. In order to do this, you need to:

- ◆ **have all your materials**
- ◆ **come to class everyday**
- ◆ **be in your seat before the bell rings or else you are considered tardy**
- ◆ **RESPECT your teacher and fellow students**

All of these things are essential for a productive environment to learn and work in.



## Materials

You will need to bring the following **every class day**:

- 3-ring binder or some type of folder to organize your notes, homework, and tests.
- Paper
- Pencils
- Graphics Calculator (TI-83 or higher) – mandatory for AP Exam.

The textbook that we will be using is Calculus Early Transcendentals 5e by Stewart published by Thomson/Brooks/Cole. It is your responsibility to take care of your assigned textbook. ***There will be a class set of texts so you may keep your assigned text at home.*** Writing on desks or in the textbook is not permitted. If you lose your or damage your book or if you turn in a book that is not your assigned book, you will be fined. The cost is:



## Notes

Keeping good and thorough notes is vital to your success in this class. Expect to take notes everyday and most of the period. We have only a fixed amount of time to get you the Calculus AB material. If you miss a day, you will want to copy notes from a fellow student or the teacher. You may want to have a separate notebook just for this course.

## Homework

*Expect homework every night.* Homework is to be done neatly so that I can read it. Chances are if you can't read it, then I can't either. Work and diagrams must accompany every problem unless otherwise instructed. *If you just write the answers down, you will not get any credit!* **Copying another student's paper will not be tolerated.** Any type of copying will automatically be assessed a zero. Remember the AP Exam is the goal that we are working towards and all work done in this class are steps towards this goal.

Label each assignment in the upper right hand corner of the paper with the following:

Name, Date, Period and Page/Assignment

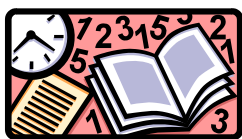
Homework is to be completed before class the following day. Each homework assignment that is collected will be worth a total of **5** points. If it is not completed before class, then it is **late**. Late homework will receive **no** points.

If you need homework help you will be expected to get help outside of class time.

## Make-Up Policy

In the case of an absence due to **school activity or excused absence** from school, you may complete the assigned work and submit it for full credit within as many days as you were absent. Work missed during an **unexcused absence** should be done, but will not receive credit. You can get the missed assignments from the assignment sheet posted in the classroom. **I HIGHLY RECOMMEND THAT YOU DON'T MISS THIS CLASS AT ALL.** It is essential that you come to class.

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## Grading

Because of the nature of being a college level class, there is more emphasis on tests/quizzes and the final than on homework. Your final grade is cumulative for the entire semester. It will consist of the following grade break up:

1. Tests, quizzes, Fundamentals	60%
2. Homework, notebook	20%
3. Final (Previous AP exam)	20%
<b>Total</b>	<b>100%</b>

Letter grades will be assigned based on the following AP Calculus Exam scoring scale of 1-5.

A (5)	83% - 100%
A-	80% - 82.99%
B+ (4)	78% - 79.99%
B	73%-77.99%
B-	70% - 72.99%
C+ (3)	68% - 69.99%
C	63%-67.99%
C-	60% - 62.99%
D (2)	50%-59.99%
F (1)	Below 50%

## Course Outline

Your Calculus textbook has 17 Chapters. We will complete approximately the first 7 chapters this first term. The final exam will be an actual AP exam with appropriate time frames and rules. The topics that will be covered are as follows:

### 1<sup>st</sup> Quarter

#### **Pre-Calculus Review Topics**

**Chapter 1** – Functions and Models (including Exponential, Inverse, and Logarithmic functions)

**Chapter 2** – Limits and Derivatives (Continuity, tangents, rates of change)

**Chapter 3** – Differentiation Rules (Chain rule, implicit, related rates)

**Chapter 4** – Applications of Differentiation (Mean Value Theorem, Max and Min, L'Hospital's Rule)

### 2<sup>nd</sup> Quarter

**Chapter 5** – Integrals (Riemann Sums, FTC, Definite Integrals, substitution)

**Chapter 6** – Application of Integration (Areas between curves, Disk and Washer Methods)

**Chapter 7** – Techniques of Integration (Parts, Improper integrals)

**Other topics** – Directional Fields, Linear Approximation, and other topics.

**\*You will also be taking Fundamentals through out the year. This is a basic skills tests based primarily on Pre-Calculus topics and already learned Calculus necessities.**



## Extra Help

You are encouraged to get extra help when needed.

**We encourage all of you to have study groups to work over problems and study for tests.** Calculus is a course that is vastly different from any previous course you have taken and we will do our best to help each one of you as much as possible. Please feel free to come, Admin-9 or Admin 7, for additional help during the hours of 7:00 am – 7:30 am, and 2<sup>nd</sup> lunch. After school help will be by appointment only from 2:30 pm – 3:30 pm. We also check my email at night so please email us if you are stuck on your homework in the evenings. Also, please see Mr. Fukuman's staff page on the school's website ([www.rosevilletigers.org](http://www.rosevilletigers.org)) for other helpful resources and links. If you are having difficulty, it is essential and your responsibility to contact us immediately. **Do not wait** until grades are due to seek help. Because of the block scheduling, time is vital – remember you will have a grade on your transcript in 9 weeks time!! This will be a challenging term, but with hard work, lots of time, and a positive attitude, together we will be successful!!

## Thoughts from previous students –

- “Do NOT be discouraged if you do not immediately understand Calculus ... you will experience a ‘click’ of understanding”
- “If you have questions, ASK!”, “Ask immediately”
- “Although homework isn't worth a lot of points, you may need to do more than is assigned! ... Do ALL your homework!”