

Welcome to AP Calculus AB!

Liberty High School

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Introduction to AP Calculus:

AP Calculus is a rigorous course in which we will be covering all topics included on the AP Calculus AB Course Exam (more information at <http://apstudent.collegeboard.org/apcourse/ap-calculus-ab>). This course will cover concepts of Calculus AB and as well as some review from previous classes, therefore we will have a very busy year! My goal is to prepare you to do well on the AP exam, but also to become better problem solvers, critical thinkers and further develop your study skills. All of these are crucial for the transition into college.

All students are expected to take the AP exam at the end of the year. The cost was \$95.00 for the 2018 exam. The AP exams are graded on a scale from 1 to 5. A score of 3 (qualified) *may or may not* earn you credit at colleges you are interested in. (UNLV requires a minimum score of 4). It is your responsibility to check with a particular college of interest to see what score you will need to be given credit. The AP Calculus AB exam will give you an AP Calculus AB score, which may give you credit for Calculus 1 at your college of interest. Some colleges and programs may require you to re-take Calculus 1. The exposure here will be helpful, but you never know what topic your college/schools will want you to know.

We will be using graphing calculators in this course and you can use graphing calculators on parts of the AP Exam. The calculator I use and recommend is the TI-89, which I will also be checking out to students, if they are unable to acquire one. The other calculator I recommend is the TI-Nspire Cas.

Summer Homework:

In order to get through all of the material by May, you have been assigned a summer assignment. In this assignment you will be reviewing concepts from previous math course, practicing graphing using your calculator, and introducing yourself to the course material.

The summer assignment will count for a major portion of your quarter homework grade; therefore, this is *not* an optional assignment. Your summer assignment will be due the first day of class, August 12, 2018.

I suggest you complete the assignments in parts over the summer to avoid cramming the entire assignment until August. All of these topics were chosen to help students review and prepare over the summer, as well as familiarize you with the AP exam. Students are encouraged to work together, but any final work must be that of the individual student. You are encouraged to review and use your notes from previous math courses to help with the assignment.

If you have any questions, you can contact me over the summer at dodgekj@nv.ccsd.net. I will try to check this email every few days. Please send me a brief e-mail introducing yourself **using your school email**. This way I have a way of contacting you and I will be able to add you to the google classroom.

I am looking forward to an exciting year in AP Calculus AB next year and getting to know all of you!

Have a great summer and I will see you in the fall,

Kate Mbariket

Summer Homework: Khan Academy

1. Go to kahanacademy.com
2. Create an account with your **school e-mail address**.
3. Once you log-in, you will see your name in the upper right corner. Click on the arrow next to your name. Click on “Profile.”

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Official SAT® Practice
Prepare for the PSAT/NMSQT or SAT with Official SAT Practice on Khan Academy. It's 100% free and personalized to you.

4. Your Dashboard will now be open. Click on “Coaches.”

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AP® Calculus AB See all (13)

AP® Calculus BC See all (14)

Limits and continuity 9 / 84 completed Start

Derivatives introduction 4 / 38 completed

Limits and continuity 9 / 84 completed Start

Derivatives introduction 4 / 38 completed

5. Under “Join A Class,” enter the AP Calculus AB 2019-2020 code: **7EPAEGA3**.

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Coaches have access to all of your Khan Academy data. Your student id is kristheanar@gmail.com

Join a class

Enter a class code or your teacher's email address:

Add a coach

Enter your coach's email address:

Your coaches

You have no coaches! Why not try adding one?

6. You will now be part of the course and Ms. Mbariket can assign you the following skills to practice. Once the skills are assigned you will see an “Assignments” tab appear.

It is suggested that you practice the skills in this order; they may not be in this order on your screen. This is the most logical order. There are 25 skills you must practice.

	Skill To Practice	Problem Set	✓
1.	Point slope form	4	
2.	Slope intercept from two points	4	
3.	Linear equations in any form	4	
4.	Evaluate function expressions	4	
5.	Determine the domain of functions	7	
6.	Evaluate piecewise functions	4	
7.	Properties of exponents challenge (integer exponents)	8	
8.	Properties of exponents challenge (rational exponents)	5	
9.	Evaluate radical expression challenge	4	
10.	Special products of binomials	4	
11.	Factor polynomials: quadratic methods (challenge)	4	
12.	Difference of squares	4	
13.	Factoring polynomials challenge	6	
14.	Quadratics by factoring	4	
15.	Evaluate composite functions	4	
16.	Evaluate composite functions graphs & tables	4	
17.	Find inverse functions	4	
18.	Find zeros of polynomials	4	
19.	Zeros of polynomials & their graphs	4	
20.	Even and odd polynomials	4	
21.	Analyze vertical asymptotes of rational functions	4	
22.	Relationship between exponentials & logarithms	4	
23.	Use the properties of logarithms	4	
24.	Trig values of special angles	4	
25.	Evaluate inverse trig functions	4	

You are not limited to only practicing these skills. You are welcome to practice additional Pre-Calculus and early Calculus skills as well. These will be the skills I will check in August.

7. For each skill, you will complete the exercises indicated in the “Assignments” tab (see 6). To start the assignment simply click on the “Start” tab to the right of each skill. For the exercises, you can get a hint by clicking the “Stuck? Watch a video or use a Hint” near the bottom of the question. If this is a new topic or concept for you, I suggest you watch the videos and tutorials before the exercises indicated by an arrow on the timeline on the left-side of the screen.

ALGEBRA 1 > LINEAR EQUATIONS & GRAPHS

Summary: Forms of two-variable linear equations

- Slope from equation
- Practice: Slope from equation
- Writing linear equations in all forms
- Practice: Linear equations in any form
- Forms of linear equations review

Linear equations in any form

You might need: Calculator

Write an equation that represents the line.
Use exact numbers.

Show Calculator

Stuck? Watch a video or use a hint.

Report a problem

Do 4 problems ○ ○ ○ ○ Check

When you click on “Stuck? What a video or use a Hint” a video option and Hint option will occur. Choose the best option for you.

8. As you complete the assignments your score will show in your “Assignments” tab. All assignments must be 100% by **August 12, 2019!**

Home Profile Badges **Assignments** Progress Discussion Projects Coaches

Assignments

Upcoming Past

ALL UPCOMING	DUE DATE & TIME	CLASS	SCORE	STATUS
Slope-intercept from two points Exercise	Aug 13th, 11:59 PM	Ms. Mbariket's AP Calculus AB Class	100%	Completed Today
Point-slope form Exercise	Aug 13th, 11:59 PM	Ms. Mbariket's AP Calculus AB Class	100%	Completed Today
Linear equations in any form Exercise	Aug 13th, 11:59 PM	Ms. Mbariket's AP Calculus AB Class	-	Start