

Welcome to AP Calculus BC!

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 BC Course Exam (more information at <http://apstudent.collegeboard.org/apcourse/ap-calculus-bc>). This course will cover concepts of Calculus AB and the additional topics of Calculus BC, therefore we will have a very busy year! The major textbook is the 6<sup>th</sup> edition of *Larson Calculus of a Single Variable*. 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 2017 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 BC exam will give you an AP Calculus AB sub-score, which may give you credit for Calculus 1 at your college of interest. You will also receive an AP Calculus BC score, which may give you credit for Calculus 2 at your college of interest. Some colleges and programs may require you to re-take Calculus 1 and 2. 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, 2019.

I suggest you complete the assignment 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](mailto: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 BC 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.”

Subjects ▾ Search Q KHANACADEMY Donate Kristheana Rico

Kristheana Rico @KRico  
Add your bio  
Add your location

Notifications · 0 >

Profile ←

Learning home

Add students

Add children

Settings

Help

Log out

Home Profile Badges Progress Discussion Projects Coaches

CollegeBoard + #KHANACADEMY  
**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.

**My subjects** Edit

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

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

Subjects ▾ Search Q KHANACADEMY Donate Kristheana Rico

Kristheana Rico @KRico  
Add your bio  
Add your location

12,663

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

Showcase Coaches Badge Counts Coaches

5. Under “Join A Class,” enter the AP Calculus BC 2019-2020 code: **SJ332ZF7**.

Subjects ▾ Search Q KHANACADEMY Donate Kristheana Rico

Kristheana Rico @KRico  
Add your bio  
Add your location

12,663

Home Profile Badges Progress Discussion Projects **Coaches**

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:  
2DDYX676 Join the class

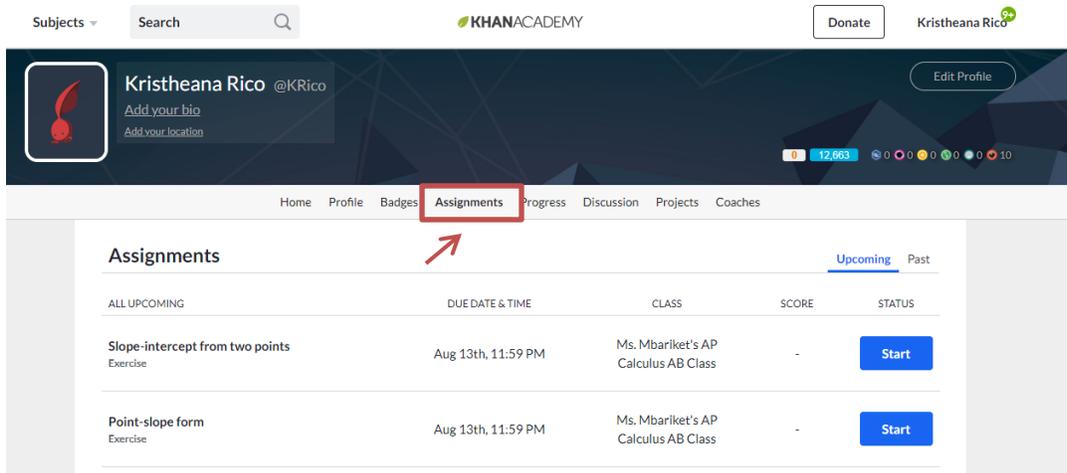
**Add a coach**

Enter your coach's email address:  
Email (yourcoach@example.com) Add a coach

**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 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 34 skills you must practice.

	Skill To Practice	Problem Set	✓
1.	Limits and Continuity Unit Test	34	
2.	Differentiation: Definition and Basic Derivative Rules Quiz 1	7	
3.	Differentiation: Definition and Basic Derivative Rules Quiz 2	8	
4.	Differentiation: Definition and Basic Derivative Rules Quiz 3	8	
5.	Differentiation: Definition and Basic Derivative Rules Unit Test	23	
6.	Differentiation: Composite, Implicit, Inverse Quiz 1	5	
7.	Differentiation: Composite, Implicit, Inverse Derivatives of Inverse Functions	4	
8.	Differentiation: Composite, Implicit, Inverse Derivatives of Inverse Trigonometric Functions	4	

You are not limited to only practicing these skills. You are welcome to practice additional 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.

The screenshot shows a math assignment page titled "Linear equations in any form". On the left, there is a sidebar with a navigation menu under "ALGEBRA 1 > LINEAR EQUATIONS & GRAPHS". The menu items are: "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" (highlighted), and "Forms of linear equations review".

The main content area features a coordinate plane with a line passing through the points (0, 2) and (2, 6). Below the graph, the text reads: "Write an equation that represents the line. Use exact numbers." There is an empty input box for the answer. Below the input box is a "Show Calculator" button. At the bottom of the question area, there is a button that says "Stuck? Watch a video or use a hint." This button is highlighted with a red box, and a red arrow points to it from the right. To the right of this button is a "Report a problem" link.

At the bottom of the page, there is a progress indicator that says "Do 4 problems" with four small circles, and a "Check" button.

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!**

The screenshot shows a student's assignment dashboard. At the top, there is a navigation bar with "Home", "Profile", "Badges", "Assignments" (highlighted), "Progress", "Discussion", "Projects", and "Coaches". In the top right corner, there is a score of 13,463 and a progress indicator showing 10 items.

The main content area is titled "Assignments" and has two tabs: "Upcoming" and "Past". Below the tabs is a table with the following columns: "ALL UPCOMING", "DUE DATE & TIME", "CLASS", "SCORE", and "STATUS".

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	-	<a href="#">Start</a>