



Bergen County Technical High School  
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## AP Calculus AB 2020-2021

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### COURSE DESCRIPTION

AP Calculus AB covers single-variable calculus including the following topics: limits, derivatives, applications of derivatives, integration, applications of integrals, and the Fundamental Theorem of Calculus. It is equivalent to at least a semester of calculus at most colleges. Algebraic, numerical, and graphical representations are emphasized. The course also stresses an understanding of the underlying concepts of calculus, rather than the computational skills. The course is excellent preparation for college mathematics and future study of mathematics. One of the goals of this course is for students to achieve a level of understanding and competency that will allow them to score well on the AP Exam and receive college credit for their work this year.

The AP Exam in Calculus will be given on TUESDAY, MAY 4TH, 2021. This exam is 3 hours and 15 minutes long. It consists of parts that will require the use of a graphing calculator and parts that must be completed without a calculator. The exam contains both multiple choice and free response questions. Each student is expected to bring their own graphing calculator to the exam.

AP Calculus is a rigorous and demanding course. Students may find it to be more difficult than any other math course they have previously taken, as it combines concepts from algebra, trig, and pre-calc. The work in AP Calculus is COLLEGE-LEVEL work. Being successful in the course requires dedication and hard-work. The expectations for students are also set much higher in this course. Students will be expected to be self-starters and learn to work and prepare independently.

### REQUIRED MATERIALS

Students should have the following accessible to them in their workspace every day:

- Three-ring binder with plenty of scrap paper OR a 3-5 subject spiral notebook & folder
  - Or iPad/tablet -- these material are for taking notes and organizing handouts
- Math textbook -- Calculus, Graphical, Numerical, Algebraic (Fourth Edition / AP Edition) - Finney, Demana, Waits, Kennedy. (there is a digital copy that students will have access to - if distributed in the future, students may choose to leave their hardcopy textbook at home or in school so as to not lug back and forth.)
- Graph paper notebook (recommended!!! There is also a graph paper feature on tablets)
- Writing Utensil (or iPad & stylus)

- Graphing Calculator (for example TI 83, TI 84, TI 89 - required, every day)
  - If you cannot acquire your own graphing calculator, BT has a free loan program! [Link posted here](#), fill out ASAP (first come, first serve)

## STUDENT EXPECTATIONS

Students are expected to:

- Virtual/Hybrid Learning
  - Throughout this year, teachers will be using a variety of online learning tools and platforms including Zoom, G Suite for Education (Google Classroom, Google Meet, Google Drive, Google Docs, Google Slides, etc), Microsoft OneNote, EdPuzzle, Flip Grid, Pear Deck, and many others. These are extensions of the classroom and students are expected to follow all Board of Education Policies and expected behaviors as outlined in the [Family/Student Handbook](#). Failure to follow these policies will result in appropriate disciplinary consequences.
  - During virtual learning, students will adhere to the school's "[Zoom Prep Checklist](#)" and "[Zoom Etiquette](#)" guidelines during each class period.
- Respect their classmates, teacher, and themselves.
- Come to class prepared and on time.
- Follow the school's policies. (See student handbook)
- Follow the Student Honor Code (See student handbook). This means avoiding all forms of academic dishonesty, including copying assignments and cheating on tests.
- Complete homework assignments neatly and on time.
- Work well with others and independently. We are creating group work opportunities via Breakout Rooms to replicate a real classroom feel whenever we can. Please do your best to participate in these discussions as you would in normal school.
- Actively participate in class - use Zoom reactions like "Thumbs Up" "green check mark" "red x" "slow down" etc if you are nervous to verbally speak out or type in the chat. These are quick, easy ways for me to see how you are feeling during the lesson.

## GRADING

Since this is an AP level course, some students may experience "grade shock." This means that some students who typically received high grades in previous math classes may find themselves getting lower grades in this class, especially at the beginning of the course. As with any class, this usually means that the student needs to be patient, seek extra help, and put extra effort into studying and doing homework assignments.

### Test and quizzes -- 90% of grade

AP Style tests will be given after each chapter completed in the textbook. Shorter quizzes will also be given periodically. Each test/quiz is given a point value, which is used to calculate the final grade. Generally, AP Style chapter tests will be worth 100 pts and shorter tests can range from 10-50 pts. There are NO RETAKES. This is a math department policy. THERE WILL BE NO FINAL EXAM THIS YEAR. Assessments will be taken via the website "Edulastic" and students will be given a run-through before our first official quiz. Students will be monitored over Zoom and are required to have their cameras placed such that their hands, phones, and eyes can be seen during the full duration of the assessment. Scrap work will be submitted to Google Classroom.

### Homework -- 10% of grade

Homework will be assigned on an almost daily basis. Homework assignments in this course generally require more time than in other non-AP math courses. Students are expected to keep up with assignments, as homework is necessary to reinforce the concepts learned in class. Students are expected to be more independent in an AP level course and are therefore required to check their homework with the solutions/homework KEYs that will be posted

alongside every assignment. The homework grade is not based solely on the number of assignments complete; there will be occasional homework quizzes to assess understanding of the homework as well (usually 5 pts, given infrequently). Homework will be submitted to Google Classroom in the "Classwork" tab.

### **ABSENCE POLICY**

When a student is absent, they are expected to make up any missed work and are responsible for any material covered. All materials will be available to students on Google Classroom or on the Course Calendar Google Sheet/Excel Page. This includes "note keys" (though students are encouraged to obtain notes from a classmate as well). Homework assigned the day of the absence should be completed the day following the student's return to class. Homework that was due on the day of the absence is due the day the student returns to class. Simply, you'll have as many days to make up work as you were absent.

If a student is absent on the day of a test or quiz, they must make up the test or quiz promptly. Most of the time, the student will be expected to take this assessment THE DAY THEY RETURN TO CLASS. The STUDENT is responsible for alerting the teacher (if possible) and / or scheduling the make-up.

### **EXTRA HELP**

I will be available for extra help from 7:55 - 8:10am each morning and during Periods 4, 5. E-mail is generally the best line of communication and please reach out to me first before joining an extra help session on Zoom.

### **ORGANIZATION & DISTRIBUTION OF VIRTUAL MATERIALS**

All materials will be distributed using links which can be found on the Google Sheet Course Calendar , Google Classroom page and my website. Students have already been invited to join Google Classroom and can find the invite link in their bergen.org emails. Most materials will only be accessible by being logged into the Google Drive affiliated with this same email account. Please do not use personal emails to log onto Drive when trying to access course material.

I am here to support you in any way that I can and therefore expect each and every one of you to succeed in my class! As long as you bring a great attitude with you, I assure you that we will have a very productive year. In treating each other with dignity and respect, our classroom will be a positive learning environment where you can always feel comfortable. I look forward to working with all of you toward a successful year!

### **Student/Guardian Acknowledgement and Consent**

I have read and understand the previous two pages covering the course policies, expectations, materials, and grading for my AP Calculus AB class. I have shared this information with my parent(s)/guardian(s). I agree to follow all included policies throughout the year. I also understand that I am responsible for the textbook that is issued to me for this class and will be fined if it is lost, stolen, or damaged (should a physical textbook ever be distributed).

**→ IN LIEU OF PHYSICAL SIGNATURES, PLEASE FILL OUT THE STUDENT / PARENT CONFIRMATION**

**<https://forms.gle/wmMACWT9aJvyUaGV8>**

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Student's name (printed)

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Student's signature

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Date

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Parent/Guardian's name (printed)

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Parent or Guardian's signature

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Date