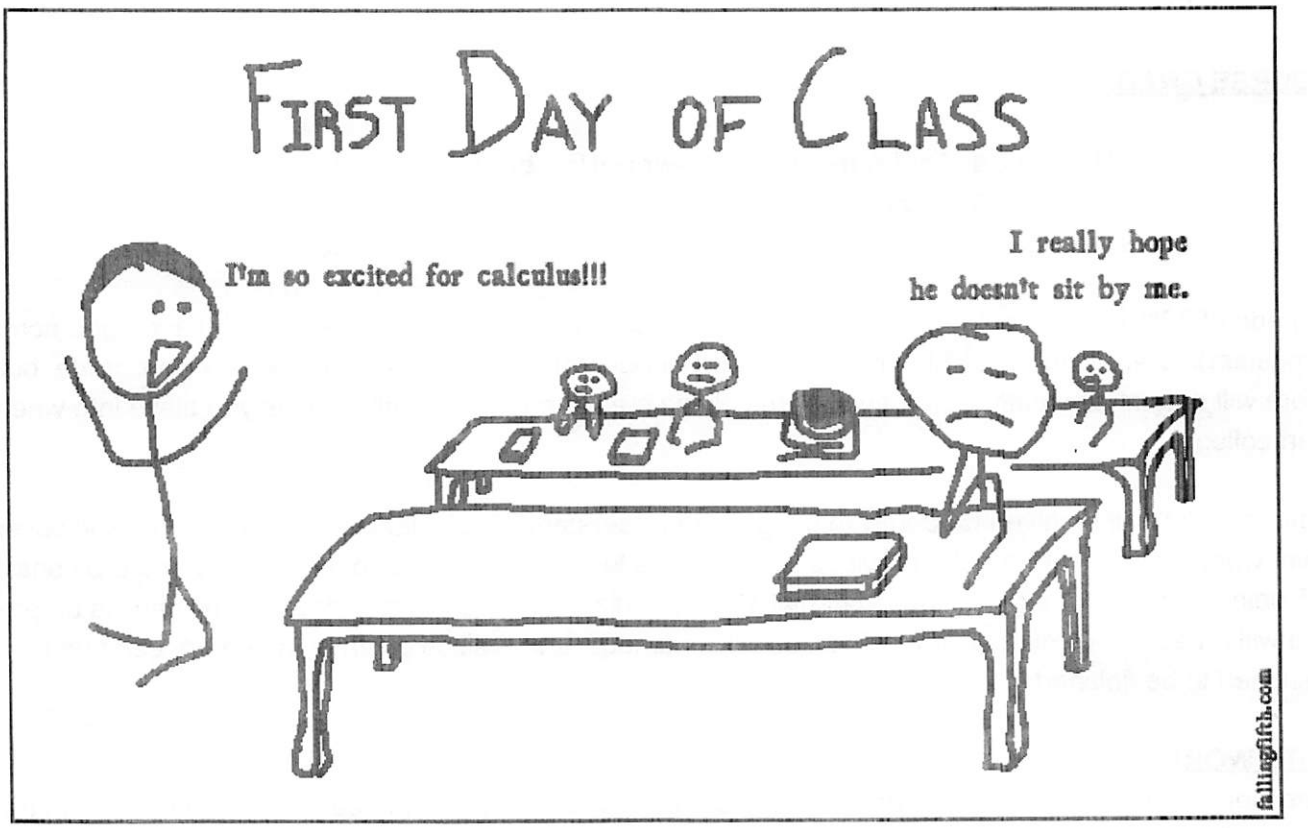
AP CALCULUS A/B

COURSE INFORMATION

Syllabus
Grading
Policies



Advanced Placement Calculus AB 2023/2024

Welcome to Calculus AB with Mr. Buck. This is year #8 at Mt. Edgecumbe for me and the 5th year of AP Calculus.

Office Hours	M-F 400-430 (except PLC days)
Phone	907.966.5250
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COURSE OVERVIEW

AP Calculus AB is a rigorous course equivalent to a first year college calculus class. Students may earn college credit by passing the AP exam offered May 13th, 2024. Passing the AP exam is not a requirement of the MEHS class and will not affect grades. Calculus AB is divided into 8 major units, which we will cover by May. There may be evening or weekend study sessions during trimesters 2 & 3 for those interested in taking the AP exam in May.

COURSE GRADE

Daily Homework Assignments/Class-work/Notebook	**15%**
Quick Checks & Quizzes	**25%**
8 Tests *(See weights last page)*	**60%**

A grade of 70% (C-) or better for the entire year is necessary to pass the course (can be averaged across trimesters). Grades are available online at PowerSchool. The AP exam has no effect on your grade, but your score will determine whether or not you earn college credit and which math classes you place into when you start college.

'Quickchecks' will be given randomly to gauge your understanding of a lesson. Each 'quickcheck' covers the homework assignment from the previous lesson or the lesson that has just been finished and are considered 1-5 point quizzes in the gradebook. Normal 10-point quizzes will be given periodically as checks on progress and will reflect AP-level questions. Quizzes will be timed. Tests will be given at the end of each unit and are designed to be finished in a single class period.

LATE WORK

Late work will not be accepted after the end of a unit. If you are absent because of sickness, school travel or other valid reasons, you will have an amount of time equal to the time missed to submit your work. Missed quizzes must be made up according to the same rules. There will be ample time to complete homework so there is no excuse for incomplete work. Homework is assessed as 'done' or 'not done' and it needs to be completed to help you understand calculus.

TRAVEL

If you are going to be traveling and will miss school, it is up to **YOU** to let me know and arrange a time to take quizzes and turn in homework assignments. School travel is a privilege and you are expected to take responsibility for your schoolwork when you travel.

MATERIALS

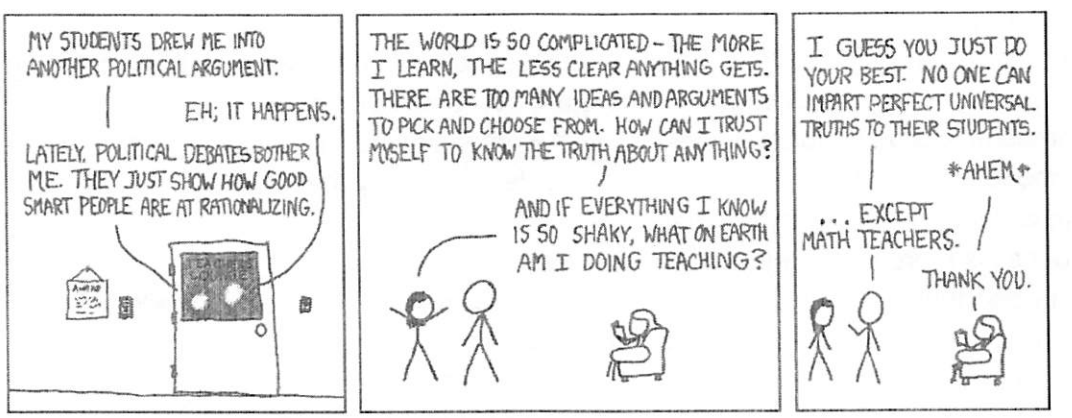
Your job is to come to class on time and prepared to learn every day. You will be expected to bring the following with you:

1. Laptop
2. Calculator
3. Math Binder
4. Homework
5. Pencil

CLASS RULES

1. Phones are to be turned off or silenced and put away.
2. Laptops are to be closed unless you are working on AP Classroom or Desmos
3. Bathroom visits are ok AFTER instruction (unless it's an emergency). One student at a time.
4. Water: fill your water bottle before class or use the fountain in the hallway
5. Music is allowed ONLY when you have work time. Having earbuds in may result in confiscation.

CHEATING is not tolerated and will result in an automatic zero and referral. Students are encouraged to work together on dorm work to learn concepts and solve problems, **but** each student is responsible for their **own** work. Copying someone else's work is not working together.



Some Thoughts.....

- Calculus is tough--no doubt about it. That being said, the hardest part of it is often the algebra and not the calculus. Most of the time, failing to solve a problem correctly comes down to messing up the algebra so take your time and pay attention to the details. Remember, have fun! We're just solving puzzles after all.

- This calculus class will rival and probably exceed the difficulty and depth of a college calculus course. Passing this class pretty much guarantees you'll be good for Calculus I and II in a college setting. Think of AP Calculus as Calc 1-½.

- Calculus is cool; you will never look at a graph, table or equation the same way ever again.

- You've found your people. Welcome.

- There is some stuff to memorize in this class, but for maybe the first time ever, you are going to do REAL math and 'memorizing steps' to solve problems will no longer work. What makes this subject so cool and interesting is that you'll be solving problems using the 'art of math' and you'll become a better problem solver.

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RECOMMENDATIONS

- Keep all of your homework and notes in a designated calculus notebook - never tear them out. If you need one, I'll give you one.
- Keep a binder to store all of your handouts, quizzes, etc. If you need one, I'll give you one.
- Ask questions in class. Lots of them. There are no dumb questions.
- Find someone to study and do homework with--someone who lifts you up and doesn't drag you down, but not someone who just feeds you the answers or lets you copy their work.
- Ask questions with your study buddies
- The process is more important than the answer
- Look for opportunities to explain things to others. Teaching is the best way to learn.
- Memorize the few things that need memorizing when we start using them.
- Again, understand the problem and how to solve it--not just some steps with an answer at the end
- Lastly, and most importantly, have fun and look forward to a class that you'll be proud of taking. You've spent your entire school career going back to Kindergarten getting ready for calculus. Bring it on!

Unit Tests are weighted to reflect exam weighting in the AP exam.

Unit Test	Points
Unit 1: Limits & Continuity	110
Unit 2: Differentiation: Definition & Fundamental Properties	110
Unit 3: Differentiation: Composite, Implicit & Inverse Functions	110
Unit 4: Contextual Applications of Differentiation	120
Unit 5: Analytical Applications of Differentiation	160
Unit 6: Integration & Accumulation of Change	180
Unit 7: Differential Equations	90
Unit 8: Applications of Integration	120

**Quizzes and homework are equally weighted across all 8 units.*

**All Quizzes, Tests and AP Classroom Questions will be curved along the square root curve:*

$$Curved\ Score = 10\sqrt{Original\ Score}$$