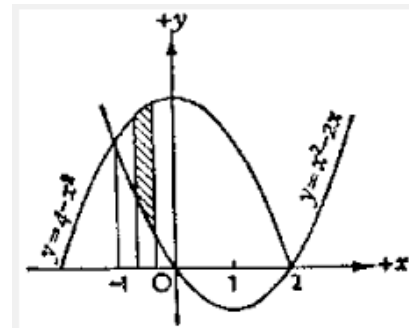


Academy of Richmond County
AP Calculus AB
Elise Aldred



Personal Information

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General Information

- Mathematics is an orderly science which requires much self-discipline. Here are some suggestions that might help you get the most out of Calculus this year.
 - **Keep up daily**, don't allow yourself to get behind, not even one day.
 - Please ask questions when you don't fully understand. Remember I love math and sometimes get excited when solving a problem or explaining a concept and you just need to slow me down so you can catch up. Ask questions, please.
 - Keep a positive attitude toward Mathematics.
 - **Be well organized and neat with your work.** These techniques are essential in Math.
- In class we will use the TI-84 plus Color Edition Graphing Calculator. These will not be allowed to go home. Of course, since one-half of the AP exam is non-calculator, we will also work problems without a calculator.
- **Mathematics is not a spectator sport!** A large portion of what we will do in this class will take place in the classroom and you will be expected to participate.
- Finally, throughout the year we will be working on communicating our thoughts in both verbal and written form. Students will be expected to explain their reasoning on homework problems and support their work with the appropriate calculus expression.

Communication

If you are experiencing difficulty in the class, please see me before or after school, even if just a quick parking lot conversation while I'm on duty. **Five minutes can put an end to hours of frustration.** A calendar of classwork and homework is posted on my Canvas website. If you are absent, be sure to look at Canvas so you will be prepared for class when you return.

Course Design and Philosophy

- Students do best when they have an understanding of the conceptual underpinnings of calculus. Rather than making the course a long laundry list of skills that students have to memorize, we stress the "why" behind the major ideas. If students can grasp the reasons for an idea or theorem, they can usually figure out how to apply it to the problem at hand.
- Daily problems from AP Test books are given for practice in preparation for the AP Exam.
- In our class we use graphing calculators daily to explore, discover, and reinforce the concepts of calculus.

Instructional Objectives for this year include, but are not limited to, the following:

Text: Demana, Waits, Kennedy, Bressoud,

Boardman:

Calculus: Graphical, Numerical, Algebraic, 6th edition, AP edition

Topics of study include:

- Limits & Continuity
- Derivatives
- Applications of Derivatives
- Definite Integrals
- Differential Equations & Math Modeling
- Applications of Definite Integrals

Upon successful completion, students will be able to:

- Investigated ideas analytically, graphically, numerically and verbally and relate the various representations to each other.
- Communicate mathematically.
- Compute derivatives and integrals.
- Build tools for solving innumerable problems.
- Solve optimization and related rate problems, find area and volume, and other applications of derivatives & integrals.
- Understand how to read graphs and tables and make justify their answer using an analytical argument

Grading

40% -- Major Assessments – Tests & AP Review Problem Packets – Tests will be given at the end of each unit – sometimes half-way through for big units. Tests will be cumulative and may be reassessed one time.
60% -- Minor Assessments – Quizzes (every lesson) & Classwork. Quizzes may be reassessed two times.
Each semester – coursework 90%, exam 10%

Homework – Homework is normally assigned every day. You are expected to attempt every problem. Correct any wrong answers when the homework is discussed in class. While homework is not required, practice is essential to be successful on tests and quizzes and must be completed before reassessing.

Take-home assignments -- These will be given periodically and will be graded. These will generally be Multiple Choice or Free-Response questions similar to those on past AP tests. I encourage you to work together on these assignments, but please do not copy someone else's work. Papers turned in must be your own and not copied from someone else in the group or copied from the internet. That will be considered cheating and will be dealt with accordingly. You may also seek help from me by appointment. These assignments will be due at the beginning of the class period on the due date and will assess late points at a rate of 5 points per day late up to 5 days after which I will not accept the work. They may be turned in prior to the due date.

Class Rules

- Please place your cell phone in its holder before the tardy bell rings, or immediately upon entering if tardy.
- Begin the POTD (Problem of the Day) when the bell rings. I shouldn't have to remind you.
- Complete all work in pencil. Use a pen to correct your homework when we go over it in class.
- Be in the room when the bell rings. I will start class promptly. You may not miss my class to stay late with another teacher without prior approval.
- Please **do not ask to be excused from class unless it is a true emergency!** The first and last 5 minutes of class are just as important as the rest of the class.

Class Absences

- Excused Absences: Students must make up work in a timely fashion (according to school policy).
- **Unexcused Absences: Make up work will be considered on a case-by-case basis.**
- Missed Quizzes/Tests: Quizzes and tests assigned before your absence and given on the day of your absence must be made up on the day you return, before school at 7:45 (quizzes) or after school at 3:25 (I have after school parking lot duty) – sometimes there is time in class. Makeup tests must be scheduled in advance. If you are present when a test is assigned and you only miss the day we review, you will be required to take the test on the scheduled day and time. Most tests will be in 2 parts/2 days – day 1 no calculator, day 2 with calculator.

Makeup Work – I strongly advise you not miss class. However, if you must be absent, it is your responsibility to make up any work you may have missed. You are expected to stay on track for each unit. I will provide a calendar as well as post it in Canvas. I strongly encourage you to take any tests or quizzes before you leave for a school related function, otherwise you must be prepared to make it up the day you return.

Notebook – You will be required to keep a 3-ring binder of your notes, quizzes, AP review problems & other handouts. This will make it easier for you when studying for the AP Calculus exam. You may want to have a separate section to record rules and theorems.

Supplies – in addition to a 3-ring binder, you will always need to have pencils on hand, as well as notebook paper. We will use the TI-84+ CE in class. These do not go home. If you would like to have one at home to use, I recommend you purchase your own. There may be a few TI-84+ CEs and SEs in the media center to check out. You may not use your phone during a test or quiz. I will not tell you how to use the calculator during a test or quiz.

Extra Help will be available after school by appointment and should be scheduled separately from making up quizzes, tests, and reassessments.