

AP Calculus BC Course Syllabus

Mr. Quwan Smith
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Room #: E121
Class Meeting Times: 6th Period
Conference Period: Lunch, by appt.

Tutorial Times: Most M – F @ Lunch, 11:05 a.m. – 12:05 p.m.

No Tutorials: Thursday lunch
Test Days (*encourages cramming*)

Resources and Materials:

- Textbooks: Primary – Larson, *Calculus of a Single Variable*, 8th edition (*provided, also download DIGITAL on computer*)
- *Mrs. Doxtater's Lecture Notes for AB (and BC) Calculus Topics Manual* (BC Topics distributed in the Spring)
- TI-89 Graphing Calculator (*provided, BRING EVERY DAY*)
- **Organized** binder (MATH only) with COLLEGE-RULED paper and dividers (lesson and assignment schedules, handouts, LOpps, POWs, quizzes)
- PENCILS (***all work is to be done in pencil***), as well as a pen (*for corrections on homework*)

Course Description/Objectives:

- **Overview:** Calculus is a study of change incorporating all previously studied math concepts.
- **Content:** Limits, Differentiation and its Applications, Integration and its Applications, Logarithmic, Exponential and other Transcendental Functions, Volumes by Slicing and Revolving, Techniques of Integration and Improper Integrals, Series, Parametric Equations and Polar Coordinates
- **Instructional Methods:** lecture (both live and video), discovery and group work
- **Goals:** critical reading, analytical thinking, creative synthesis and problem-solving, and attention to detail regarding all AB (Calc I) and BC (Calc II) Calculus topics, and beyond (some not on the AP Exam, but which I believe to be important)
- **Objective:** preparation for college options as well as an outstanding performance on the AP Calculus Exam administered internationally on **May 12, 2025**
- **Major work:** Learning Opportunities, Quizzes, Problems of the Week (POWs), Exams, Lecture Manual notes, Classwork

Course Calendar/Schedule:

- **Assignments:** Calculus Manual Entries, Learning Opportunities (i.e., Homework), POWs, as stated on assignment schedule
- **Due dates:**
 - Try-It Problems (TPs) are basic problems assigned at the end of each video lesson and are to be worked in preparation for the next class meeting. Video Quizzes occur before TP discussion. In-Class activities (SIPs – Sink-In Problems) over the new lesson follow the discussion of TPs.
 - Learning Opportunities (LOpps, i.e., Homework) are due the class following the In-Class SIP activities!!! If you do not have your LOpps, you are not ready for the next material to be discussed. (AP Packets for AP Exam preparation are included in this expectation.)
 - POWs will usually be assigned in class on Wednesdays/Thursdays and will be due during the class period (these are critical in your understanding of course topics and in a satisfying performance on the AP Exam in May)
 - Take-Home portions of Exams will be distributed two/three days prior to the In-Class portion of the Exams, are expected to be worked together with peers (as a form of a study sheet), NOT with tutors, parents, online, etc., and are due at the **beginning** of class on the day of the Exam.
- **Quizzes** will usually be unannounced – be prepared at any time for an evaluation of your progress
- **Exams** as stated on the assignment schedule → ***DO YOUR BEST NOT TO MISS AN EXAM!!!*** DO NOT “FORGET” TO BRING THE TAKE-HOME PORTION ON TEST DAY BECAUSE YOU WILL AUTOMATICALLY LOSE THESE POINTS (usually 15 – 20 pts.) ON THE EXAM!
- **Students will be expected to take TWO MANDATORY AP Mock Exams in the Spring in preparation for the AP Exam, and will count as test grades in the 5th & 6th Six Weeks cycle** (ME #1 will be given March 17 – 21 during class; ME #2 will be given in April; details are pending on this exam administration. More info on the date later. **These exams are crucial to your performance on the AP Exam.**
- **Monday, May 12th, morning exam period** → the AP Calculus Exam, given internationally at this time, will be taken by all Westside students enrolled in Calculus (both AB and BC).

Course Policies:

- **Attendance:**
 - If absent, please get together with another student for completing the lecture notes and then work collaboratively with other students first (course peers and Calc 3 tutors), then from me if the cooperative assistance did not help you. *It is*

critical that you become an independent learner. This is a “flipped” course where the basic lesson presentation is in video form, which you watch before class. Rather than a lecture, the class activities are student-centered, so it is best if you are IN class! If you know **prior** to missing a class that you will be absent, make a plan for staying ahead.

- Attending class must be a priority. Be proactive regarding your education!
- If you know **prior** to missing a test that you will be absent, please make arrangements with me ahead of time to schedule your test!! If you are unexpectedly absent on test day, please communicate with me promptly via email or Remind prior to your class period so that we can schedule your test. Please try to avoid being in this predicament.

▪ **Tardies:**

- Please make every effort to be on time to class.
- You are tardy if you arrive after the tardy bell has rung, and you are absent if you arrive more than 10 minutes after the tardy bell has rung (school policy). Quizzes will usually begin as soon as the tardy bell rings.

▪ **Class Participation:**

- You will regularly present work on the board and work cooperatively with your peers. It the one thing we do that will help you learn. We celebrate learning from making mistakes! This is where you learn to think for yourself.
- Please understand that a paid tutor does not help you learn to think for yourself. The tutor will not sit there while you struggle with a problem, so a tutor tends to give hints to suggest ways to work a problem...problem is, you won't have that assistance during a quiz/exam!!
- For you to master this coursework, you will need to put time into it and learn to speak “math-y.”
- **Math is not a spectator sport!!**

▪ **Assignments:**

- This is a “flipped” classroom. This means that you will watch a brief video lesson (usually < 20 min), complete the accompanying notes in the Lecture Manual, and work the approximately 5 basic TPs (Try-It Problems) as scheduled in the lesson plans/assignment schedule for your “homework.” The next day in class, you will work a variety of problems (SIPs), and these become LOpps (“Learning Opportunities,” a.k.a “homework”) that solidify your understanding of the material presented in the video. Any SIPs from class that are not completed in class become LOpps to be completed outside of class, and are due at the next class meeting.
- Usually, you will get a large portion of what you would consider to be “typical math homework” done in class. *Your success in this system will depend on how prepared you are when you come to class, ESPECIALLY with regard to watching the videos and taking notes prior to the class meeting in which they are to be discussed.*
- Calculus takes **time** for your brain to absorb, and regular practice for your Algebra skills to improve. Doing a little Calculus work **every day** will strengthen not only your technical skills, but most importantly, your analytical skills. These cannot be rushed or crammed!!! Remember, this is a marathon, not a sprint!

▪ **Make-ups:**

- The purpose of Learning Opportunities is to help you become comfortable with course material, concepts and skills, as well as to prepare you for the new material discussed in class. If you have not done it, you are not ready to learn. There is no make-up work that can replace missing or incomplete assignments.
- If you know you will miss an exam prior to its administration, **and** you make arrangements with me **ahead of time** to take the exam, you will be permitted to take the original exam **as long as it is taken within 24 hours (1 weekday)** of its original administration. If you are absent on Test day, and contact me via email prior to your class’ exam, we will reschedule your exam.
- A pattern of missing exams is problematic. Please try to avoid being in this predicament.
- Attending class must be a priority. Quizzes will occur regularly and will not have makeups. I will usually drop 1 or 2 quiz grades; a missed quiz will be the dropped grade.

▪ **Re-Tests:**

- AP Calculus BC is a college-level course and there are no such things as “re-tests” in college. Honestly, if you are working as you should in class and are prepared each day, and can contribute to class activities regularly, you will perform satisfactorily on each test. You worry about learning. Let me worry about your grade. (Marathon, not a sprint.)
- Also, you are going to take ONE EXAM on May 12th for college credit for this course. If you are conditioned to entertain the idea of “re-tests,” you will not be prepared for the significance of this singular exam.
- As a compromise, there will be an “old material” section on most exams which enables you to raise your previous original test score, and it is open to anyone who wishes to work it. You must do significantly better on the “old material” portion of the test than you did on the originally tested material in order to earn extra points on the original test.

▪ **Cheating:**

- **If you cannot explain your work that you bring to class, it will be clear that you did not do your work yourself.** If you have done the work YOURSELF (i.e., you have not had a tutor coach you through it, nor have copied it from

another source), you will know what you did and be able to explain it to others. I expect you to work together on almost everything, because this is how you learn. **You know when you have crossed the line.**

- **If you discuss any part of a quiz or test with a peer who has not yet taken it, YOU ARE CHEATING.**
- **Other examples of cheating include, but are not limited to:** copying someone's homework or in-class assignments, copying work/answers from the internet, letting someone copy your work, having someone else's homework paper, using a cheat sheet for a quiz or test, etc.
- **Trust is very difficult to rebuild. Please do not put yourself in this position with me. No grade is worth it.**

- **Expected Behavior:**
 - Being kind and encouraging.
 - Having respect for instructor, peers and yourself.
 - Exhibiting honesty, integrity, and exemplary character.
 - Participating in classroom activities.
 - Watching **all** lesson videos, and completing **all** lecture manual notes and learning opportunities by due dates.
 - Using PENCIL for homework, quizzes and tests.
 - Being present and on time to class **with all necessary supplies.**
 - Participating in independent study groups (the first step to academic success and excellence).
 - Attending tutorials to work on course material and to collaborate with others.
 - Carrying your weight as you work in groups for the class, especially in the Chapter Presentation Projects.
 - Utilizing various resources which will help you better understand the material.
 - Leaving Mrs. Doxtater's stuff in the same or better condition in which you found it.
 - **Handling your concerns with maturity and responsibility** → **please communicate with me prior to allowing a problem (academic or personal) get out of hand** – *I expect to know from you first if there is a problem or area of concern. Please do not depend on your parents to solve your problems!! You must develop mature independence and learn how to properly advocate for yourself so that you can do it when you get to college, and I am here to help you do that!!*

- **Unacceptable Behavior:**
 - Using profanity (verbal, physical, symbolic or written).
 - Cheating in **any** form (including copying homework).
 - Being disrespectful, inconsiderate or generally surly.
 - Sleeping in class.
 - Not taking care of this space (trash, writing/gum on desks, etc.)
 - Having incomplete or non-existent homework assignments.
 - Being absent from class, **especially if there is a recurrence, or pattern, on test days.**
 - Removing **anything** from the classroom which is not yours.
 - Asking if there is any **extra credit work** you can do to “bring up your grade.” Use your class time well to learn!
 - Grade grubbing: disputing each point on a graded activity. I put a great amount of time into both creating and assessing all quizzes and tests, as well as the very occasional graded homework.
 - Telling me that you must have a “[fill in the grade]” for admission to a particular university, or college program, or for a scholarship. It is your responsibility to be in my room regularly, mastering the course material if this is a concern for you. Please do not ask me to give you this necessary grade when you have not earned it as this calls into question my integrity as an Instructor and AP Teacher.

- **Grades:**
 - **Overall Six Weeks Average determined by:**

▪ Classwork/Learning Opportunities/Boardwork/etc.	10%
▪ Quizzes/Problems of the Week/etc.	20%
▪ Exams	70%
 - **Bonus Opportunities:**
 - 100% attendance and participation on Exam days: 1 pt. earned on the Exam
 - **Note:** if you take the test **early** because you will miss an exam when it is administered in class, you are eligible for the attendance bonus point
 - Additional points may be earned on each Exam
 - There may, or may not be, additional bonus opportunities offered occasionally in class

Students will be issued a TI-89 Calculator and a textbook for the course, to be returned at the end of the year after the AP Exam. If either of these is lost or damaged, you are expected to replace it prior to the end of the school year or grades will be held. You are expected to provide calculator batteries, as needed.