

AP Calculus BC Syllabus

Mr. Leckie (Room C109)

Credits: 1

Textbook: Calculus: Graphical, Numerical, Algebraic 4th ed., Finney.

Available online at <http://phschool.com> using Web Code AZE – 0646

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Prerequisites: Successful completion of Algebra 1, Algebra 2, Geometry, and PreCalculus H, and AP Calculus AB

Course Description

AP Calculus BC is roughly equivalent to a second semester college calculus course devoted to topics in differential and integral calculus. The Calculus BC exam will cover all the material from the Calculus AB course with addition to Series, Parametric, Polar, Vectors, and extensions of various topics throughout the year. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions. Each student must take the Advanced Placement examination through The College Board for possible college credit. Students entering this course should have successfully completed Pre-Calculus and AP Calculus AB and have a teacher recommendation. This course is open to all students willing to attempt the rigors of the prescribed curriculum.

Course Standards ... A course overview & other good stuff from College Board about AP Calculus BC

<https://apcentral.collegeboard.org/courses/ap-calculus-bc?course=ap-calculus-bc>

Course Outline: Very tentative and Highly Subject to Change due to Weather and Testing Schedules.

Each unit will contain some element of the AB course as review

- Quarter 1: (Ends 10/22/19) We will begin the year with HS101 and a review of the AB Free Response from last year.
Unit 1: Parametric & Vector Functions, Arc Length, and Motion (6 blocks ... Unit 1 Test on Sep 9/10 2019)
Unit 2: Integration Techniques ... Parts, Partial Fractions, Improper (9 blocks ... Unit 2 Test on Oct 3/4 2019)
- Quarter 2: (Ends 1/16/20) Assuming we aren't interrupted w/weather delays!
Unit 3: Euler's Method, Logistic Growth, and Polar Curves (10 blocks ... Unit 3 Test on Nov 1/4 2019)
Unit 4: Sequences and Series Intro (12 blocks ... Unit 4 Test on Nov 11/12 2019)
Unit 5 will begin before the end of Q2.
MIDTERM EXAMS will take place after winter break (3 blocks ... 2 review and 1 test) Schedule TBD
- Quarter 3: (Ends 3/20/20) We will finish all new material by the end of this quarter ... again, weather permitting!
Unit 5: Alternating Series, Ratio Tests, and Power Series (11 blocks ... Unit 5 Test on Feb 5/6 2020)
Unit 6: Taylor/Maclaurin Series & Error Bounds (10 blocks ... Unit 6 Test on Mar 6/9 2020)
- Quarter 4: Q4 is designed to prepare for the exam. You have 8 weeks from the time we finish unit 6 until your exam!!
I have practice AP exams that you can use in class. You will also need to use AP Classroom to review!
There will be a MOCK EXAM very tentatively scheduled for April 2/3 and 6/7 2020.
We have approximately 10 blocks (plus the two mock exam days) of class time to prepare!
USE YOUR TIME WISELY both in and out of the classroom.
Your performance on the exam is a direct reflection of the time and energy YOU spend preparing for it!

THE AP EXAM IS SCHEDULED FOR MAY 5th, 2020 @ 8 AM.

- AP Exams go from May 4 – 15, 2020. EOC Exams are scheduled all throughout May/

For a complete listing of AP test dates: <https://apcentral.collegeboard.org/courses/exam-dates-and-fees/exam-dates-2020>

Classroom Expectations and Consequences:

I expect you to ...

- be on time & prepared when class begins (bell or no bell)
- put forth your absolute best effort every day
- treat everyone better than you want to be treated
- listen to, read, and follow directions the first time
- Sign up for REMIND!! @ar-calcbc**

When expectations are not met:

- 1st offense: Verbal warning
- 2nd offense: Parent Contact & Lunch Detention
- 3rd offense: Referral to Guidance
- 4th offense: Referral to an Administrator.

Class Procedures: Be in your seat and prepared with all materials when the bell rings.

During Class: Your participation is crucial to your success. If you must leave for any reason, gain permission before you do. Do not stop instruction to ask to leave the room unless it is an emergency.

End of Class: Class ends when then teacher dismisses the class. DO NOT pack up and stand by the door before the bell rings.

Calculators: It is highly recommended that you have your own calculator at home! ,, We use the TI-84+ in class.

Grading and Assessments

<i>Quarter and Semester Grades</i>	<i>Final Exam and Final Course Grades</i>
Each Quarter (Q1, Q2, Q3, and Q4) is composed of <ul style="list-style-type: none"> • 10% Practice • 30% Minor Assignments • 60% Major Assignments Each quarter contributes 50% to the semester grade. Semester 1 (S1) = (Q1 + Q2)/2 Semester 2 (S2) = (Q3 + Q4)/2	There is no final exam in this course when the AP exam is taken. However, after October 1, anyone who drops the course or fails to take the AP exam will be assessed a \$40 fee. The Final Course Grade (Y1) is composed of <ul style="list-style-type: none"> • 50% Semester 1 • 50% Semester 2 Final Course Grade (Y1) can be calculated as follows: $Y1 = (2*S1 + 2*S2)/4$

SC Grading Scale	A	B	C	D	F
	90 – 100%	80 – 89%	70 – 79%	60 – 69%	Below 60%

- Attendance is CRUCIAL!! You have a responsibility to handle your missed class time due to school activities BEFORE you miss class, NOT after! Waiting till the next class period means you are now 2 blocks behind!!!
- *Practice Category* will include in class activities, worksheets, MathXL assignments, and AP Classroom assignments.
 - MathXL assignments are due at midnight of the due date and will be penalized 20% for late work.
- *Minor Assignments* will include in class activities, group quizzes, and AP Classroom Progress Checks
 - Groups for quizzes may be randomly generated. You are NOT required to join a group, but you may not opt out after groups are selected. In order to participate in a group quiz, you MUST be in attendance the day the quiz is given. Exceptions will only be given to those who know they will miss class for a school activity (like field trips) and *pre-arrange* a time to take the quiz prior to the date it is given in class. This is YOUR responsibility.
- *Major Assignments* will include individual quizzes, unit tests, and midterms. An opportunity to improve your test grades will be offered after each test, provided there is time left in the quarter. Deadlines will be given.
 - Most major assignments will be cumulative.

Interventions and Opportunity for Extra Help

ILT is available for extra help and making up missing work. Poor performance may result in your required attendance for SLT. Quarter Recovery options will be given if a student is unsuccessful in completing any of the first three quarters. If necessary, recovery options will be discussed with the student detailing what must be completed and any deadlines for completion.

Extra Resources for Students

ARHS & DD2 online programs:

USA Test Prep: www.usatestprep.com.
 Click on the login button on the top right hand side.
 The username is ashleyridgesc and the password is newton33.

AP Resources from College Board: <https://myap.collegeboard.com>
 Use the code **4J6V3M**

Other Websites that might be helpful for AP Calculus:

- www.khanacademy.com patrickjmt.com www.flippedmath.com tutorial.math.lamar.edu
online.math.uh.edu/HoustonACT/videocalculus/ www.chaoticgolf.com (or www.leckiecharms.com)