

AP[®] Calculus BC Course Syllabus

Teacher: Mr. Stanton

Room: 311

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Course Description:

AP Calculus BC is a college level math course equivalent to a second semester Calculus II course at any university across the nation. Calculus is the mathematics of change. For instance, calculus is the mathematics of velocities, accelerations, tangent lines, slopes, areas, volumes, arc lengths, centroids, curvatures, and a variety of other concepts that help scientists, engineers, and economists to model real-life situations.

Required Text: Larson/Edwards Calculus of a Single Variable – 10e

Course Content:

Chapter 1: Limits and Their Properties
Chapter 2: Differentiation
Chapter 3: Applications of Differentiation
Chapter 4: Integration
Chapter 5: Logarithmic, Exponential, and Other Transcendental Functions
Chapter 6: Differential Equations
Chapter 7: Applications of Integration
Chapter 8: Integration Techniques, L'Hospital's Rule, and Improper Integrals
Chapter 9: Infinite Series
Chapter 10: Conics, Parametric Equations, and Polar Coordinates
Chapter 11: Vectors & Geometry of Space
Chapter 12: Vector-Valued Functions

Course Evaluation:

Highland Universal Grading Scale

| | | |
|-------------|-----------|------------|
| A+ = 98-100 | A = 93-97 | A- = 90-92 |
| B+ = 87-89 | B = 85-86 | B- = 83-84 |
| C+ = 81-82 | C = 76-80 | C- = 74-75 |
| D+ = 72-73 | D = 67-71 | D- = 65-66 |
| F = ↓ 65 | | |

The following categories will be used as percentages to calculate your overall grade.

Quizzes - 30%

Tests - 70%

There is no rounding on quarter or semester grades. In other words 91.99 is a B+, whereas 92.00 is an A-.

Homework:

Suggested homework problems will be given daily. It is in your best interest to do the assignment as completely as possible **the day the homework is assigned**. IT IS YOUR RESPONSIBILITY TO COMPLETE THE WORK. YOU WILL BE RESPONSIBLE TO KNOW THE MATERIAL!

Quizzes:

There will be a quiz in every chapter and some chapters may have 2 quizzes. All quizzes are comprehensive. This means that I will quiz you on any material we have covered throughout the year. Quiz practice will be given two days before the quiz and are expected to be completed before you take the quiz.

Tests:

There will be one test per chapter. The chapter test will cover material from the current chapter only. Test reviews will be given at least two days before the test. This is not a homework assignment but is expected to be completed in order to help you study.

Quiz/Test Makeup Guidelines:

A student who is absent the day of a test has two school days to make up the quiz/ test. Other circumstances will be dealt with individually. If you feel that you have a unique circumstance that deserves an exception, **please talk to me in advance**.

Retake/Redo Guidelines:

Any student may retake any quiz for full credit regardless of the initial grade. There is a retake form (see attached) that must be completed before every retake. Quiz questions answered correctly may be banked if retake process has been started within one week and the quiz practice has been completed prior to the quiz. After one week, questions are unbanked and you must retake the entire assessment. You may retake any quiz **as many times as needed** to show mastery of the content before the end of the grading period. There are no retakes on tests.

Website:

My website can be accessed from the Highland High School webpage by following the links from high school, to high school staff, then by clicking on the website link below my name.

There will be valuable links to each class that will include; an outline of the notes we will cover in class, the homework from that week, and videos that are recorded every day from the lecture in class. These videos are of the SMART board and my voice, and can be very helpful when studying outside of school or in case of an absence.

Flipped Classroom:

Occasionally I will be doing what's called a flipped classroom. This is where you will watch the video of the lecture the **night before class**. Then, class time will be used for homework. This way I am available to help you with all of the homework and it will give us more time to have discussions about concepts and analysis of the material.

This only works if you commit to watching the videos and taking notes ahead of time! You will not be able to complete the homework in class without first watching the lesson.

If you do not have access to high speed internet at home, I have flash drives that I will load the video lessons onto and you will be allowed to check out both a flash drive and a netbook if needed. PLEASE TALK TO ME AHEAD OF TIME IF THIS IS THE CASE.

General Classroom Policies:

The classroom is a place for learning and exploration. Failure is simply our First Attempt In Learning. As such, it is essential that each of us work to create and maintain that environment. To that end each student is expected to:

- Come to class on time, **with all required materials**, ready to learn
- Actively participate; both in individual and group work, as well as discussion
- Respect each other, the teacher, and the environment
- Take responsibility for your learning, **ask questions when necessary**
- Any violations of school rules or disrespect will be subject to:
 - Verbal reminders
 - Retention after class/resource/school
 - Office referral
 - Detention & parent contact
- Encourage active participation and healthy group discussions by:
 - Acknowledging participation – even if incorrect
 - Allowing explanations
 - No negative comments such as “That’s so dumb”
 - Any other words/phrases I find offensive
- CELL PHONES/HEADPHONES/CHROMEBOOKS/ETC.
 - There will be **no electronics** allowed in the classroom for any reason unless otherwise stated
 - If you are using it in the hallway it needs to be put away **before you enter my room**
 - If I **see** or hear (even on vibrate) a cell phone/smartwatch/headphones/Chromebook I will take it and it can be picked up at the end of the day.

Math Quiz Retake Form

Assessment _____ Class _____

- ☐ 1. Quiz Practice must be **COMPLETE AND TURNED IN BEFORE THE QUIZ** in order to bank questions on the retake. Attach the original quiz and the completed practice to the back of this sheet and turn it into the basket. _____
- ☐ 2. Complete all extra practice problems. **SHOW ALL OF YOUR WORK!** Turn this packet into the basket. _____
- ☐ a. Redo incorrect extra practice problems **ON A SEPARATE SHEET OF PAPER!** Turn this packet into the basket. _____

- ☐ 3. Schedule a time to complete the retake. Keep this packet to study from and turn it into the basket when you come to complete the retake. _____

Additional Teacher Requirements

Student Signature _____

Teacher Signature _____

Redo Date _____ Time/Period _____

*Quiz questions may be “banked”. Only incorrect problems must be retaken. Quizzes may be retaken as many times as needed.
I reserve the right to refuse a retake at any point if I feel you are abusing the retake process.*

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Highland, WI 53543

- ☐ I understand the homework policy and agree that math requires repetition to achieve mastery; therefore time should be spent on math outside of class. **This time varies depending on the individual and difficulty of the material.** Adequate time should be spent to achieve desired level of mastery.
- ☐ I understand the quiz and test policy, and agree to take advantage of every opportunity given to improve in mathematics.
- ☐ I am aware of the website and the resources it provides.
- ☐ I understand the flipped classroom and agree to watch all necessary videos, when assigned, to be prepared for class.
- ☐ I have read the student contract and understand the course requirements, guidelines and classroom policy for math class.
- ☐ I understand that **my grade in this class is a reflection of how well I know the material and not based on effort.**
- ☐ I understand the **policy for cell phone/smartwatch/headphones/Chromebook** in the classroom.

Date: _____

Student's Signature _____

Parent/Guardian Signature _____

