

# The Academies at Jonesboro High School

**Dr. Kena Gibson**

AP AB Concurrent Credit Calculus  
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**“Belief in oneself is one of the most important bricks in building any successful venture.”**

– Lydia M. Child

Welcome to our AP AB Concurrent Credit Calculus class! I am excited to get to know each of you and to guide us through the continuation of our discovery of the infinite world of Mathematics. I am always willing to answer any questions about the concepts at any point during the year. We are in this together, and together we will make significant improvements in our understanding of mathematical objectives. Adhering to all of the requirements explained in this syllabus will help us reach our full potential.

**Course Description:** AP AB Concurrent Credit Calculus is a fast-paced course which is designed to enable students to succeed on the AP Calculus exam and receive institutional credit for Calculus I from Arkansas State University. ALL students are expected to take the AP Calculus exam on Tuesday, May 15, 2018 at 8:00 am. The Advanced Placement (AP) program is a cooperative educational endeavor between secondary schools and colleges and universities. For students who are willing and able to apply themselves to college-level studies, the AP Program enriches their secondary and post-secondary school experiences. It also provides the means for colleges to grant credit, placement, or both to students who have applied themselves successfully. The College Board administers the Advanced Placement Program.

You may visit the College Board website at <http://www.collegeboard.org/ap/html/index001.html>

**Student learning outcomes for MATH 2204, Calculus I:** The students will be able to

- Evaluate the limit of a function via graphs, tables, and limit laws
- Prove a function is continuous or discontinuous at a point
- Find derivatives of simple functions using the definition of a derivative
- Understand the meaning of the derivative in terms of rate of change and slope
- Apply standard differentiation techniques including the product, quotient and chain rules
- Analyze functions using first and second derivatives
- Use derivatives to solve applications including optimization and related rates problems
- Find anti-derivatives
- Understand the meaning of the definite integral both as a limit of Riemann sums and as a net accumulation of a rate of change
- Use the Fundamental Theorem of Calculus to evaluate definite integrals

**Google Classroom Code:** 984kzo

### Supplies needed:

- Pencils ONLY
- Erasers
- 3-Ring Binder
- Loose-leaf College Ruled Notebook Paper
- Calculator for Home (Suggestion below)



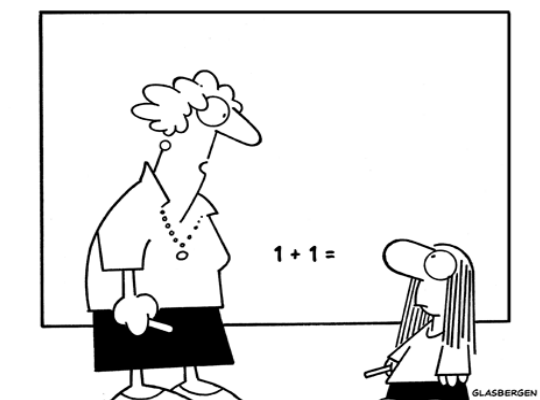
**If you are purchasing a new calculator, I recommend a TI 84 Plus.  
Purchasing a new calculator is not required, however, if you plan to further your  
mathematical education, this calculator will also be useful in college.**

### Grading Scale:

- A: 90 - 100%
- B: 80 - 89%
- C: 70 - 79%
- D: 60 - 69%
- F: Below 60%

### Grading System:

- Classwork/Homework – 20%
- Quizzes/Tests – 80%



"Yes, this will be useful to you later in life."

### Grading Policies:

- You will be graded for mathematical skill, mathematical communication and completeness. You should write explanations, using complete sentences, for most problem situations. **Do not** just repeat in words the mathematics you have done. Rather, explain the reasons for your process. Use the word "because"!
- Complete all work in pencil.
- All assignments are due at the beginning of the block for which they are assigned.
- Assignments are due at the beginning of the block the day they are due. All work submitted late will receive half credit at most.
- Be a Person of Integrity –
  - Cheating is **NEVER** acceptable. When cheating is detected, you will earn an automatic zero.
  - Do not allow others to copy your work or you will also earn a zero.
  - Please come to me if you need help completing independent assignments.
- Exams: Exams will be in an AP format and will be timed. They will contain both multiple choice questions and free response questions. Exams will also contain both calculator and non-calculator portions. There will be a test at the end of each unit.
- Quizzes: There will be several quizzes within each unit to help show your understanding.

### Make-Up Policies:

- Make-up Work and Assessments – If you miss an assignment, quiz, or test for any reason it is your responsibility to make up what you missed.

## **Classroom Expectations:**

Every day, everyone is expected to meet these overarching expectations:

1. **Work Hard** – Achieve the BIG GOAL of mastering as many AP Calculus concepts as possible!
2. **Be Nice** – Team beats the individual.

Within these two expectations, there are specific rules each student is expected to follow:

### **Work Hard:**

- Be Prepared –
  - Come to class with prior knowledge, necessary assignments, and materials.
  - All hardcopy work you turn in should include your full name, date, and class period.
- Be Punctual – Please arrive on time, sit in your assigned seat, and retrieve your class materials.
- Be Professional –
  - The way you behave in class should demonstrate your ability to show professionalism.
  - Take care of all personal business (using the restroom, ect.) **before** coming to class. If you think you will be tardy, ask permission before the tardy bell.
  - Always ask permission before leaving the classroom. Record the date and where you are going time on the sign out log.
  - Participate in discussions, catch mistakes, ask questions, and take good notes.
  - Treat our classroom calculators as if they were your most prized possessions.
- Use all class time wisely.
  - Do not work on assignments for other classes unless permission is given.
  - I dismiss you from class, **not** the bell. Stay on task and seated until I give directions to pack away materials and leave the classroom.
- Use of technology in the classroom is strictly under my discretion.
  - Set all forms of technology aside during class unless I instruct you to do otherwise.

### **Be Nice:**

- One Mic – When an individual is speaking to the class, whether it is the teacher, a student or a substitute teacher, **everyone** else is expected to remain silent.
- Safe Space – Be respectful of others feelings, personal space, and belongings at all times.
  - Bullying, in any form, **will not** be tolerated in my classroom.  
See the Academics at JHS Student Handbook for the complete policy on bullying.

### **Ms. Gibson's Big 3:**

1. Creating and maintaining a safe space in the classroom.
2. Using **all** class time wisely.
3. Using technology **only** when I give directions or permission to do so.

I will do everything I can to help you succeed; however, I cannot do the work for you. You have to help yourself! Do all you are capable of doing to ensure your success and you will see the impossible become possible.

Disclaimer: This syllabus is subject to change at the discretion of Ms. Gibson and there may be other rules or procedures that may be implemented during the course of the year.