Advanced Placement Calculus AB

Davidson Fine Arts 2023-2024

# Instructor Information

|  |  |  |
| --- | --- | --- |
| Instructor | Email | Office Location |
| Latanya Jackson | Jacksla1@boe.richmond.k12.ga.us | Room 223 |
|  |  |  |
| Remind Information |  |  |
| Text @42b73e to 81010 |  |  |

# General Information

## Description

AP Calculus AB is the equivalent of a first semester college calculus course comprising topics in differential and integral calculus. All students are required to have completed the following prerequisite courses: Algebra 1, Geometry, Algebra 2, and Pre-Calculus. After successfully completing the curricular requirements of Advanced Placement Calculus, students are given an opportunity to take an exam administered by the College Board to assess their knowledge and understanding of calculus.

# Course Materials

## Required Materials

* Pencils and Colored Pens (Erasable)
* Loose Leaf Paper
* 2 Composition or Spiral Notebooks (college-ruled)
* 3 Ring Binder (1-in)
* TI-Nspire CX II Graphing Calculator

## Technology Requirement

Students will have access to a class set of TI-Nspire CX II and 84+ graphing calculators; however, it is highly recommended that each student own a graphing calculator for at home use. Some problems throughout the course will require the use of graphing calculators to visualize concepts and to support algebraic findings. [CR7]

## Textbook Requirement

## CR2-Demana, Franklin D., et al. *Calculus: Graphical, Numerical, Algebraic*. 6th ed., Pearson Education, Inc, 2020. ISBN 13: 978-1-4183-0020-3 [CR1]

# Course Outline

| Unit | Topic | Big Ideas |
| --- | --- | --- |
| Unit 1 | Limits and Continuity | Change, Limits, Analysis of Functions |
| Unit 2 | Differentiation: Definition and Fundamental Properties | Change, Limits, Analysis of Functions |
| Unit 3 | Differentiation: Composite, Implicit, and Inverse Functions | Analysis of Functions |
| Unit 4 | Contextual Applications of Differentiation | Change, Limits |
| Unit 5 | Analytical Applications of Differentiation | Analysis of Functions |
| Unit 6 | Integration and Accumulation of Change | Change, Limits, Analysis of Functions |
| Unit 7 | Differential Equations | Analysis of Functions |
| Unit 8 | Applications of Integration | Change |

[CR2]

# Grading Policy

| Category | Percentage |
| --- | --- |
| Minor Grades (quizzes, labs, graded work) | 60 |
| Major Grades (tests, project-based assignments, culminating tasks) | 40 |
| Homework (practice) | 0 |

Total 100

\*\*\*Extra credit is not allowed as students are given opportunities to relearn and reassess per the Richmond County School System policy.

* **Work Problems** (AP Classroom, MyMathLab, DeltaMath) will be assigned and graded for accuracy. These are designed to further reinforce the concepts covered in the class. Progress Check problems will also be assigned to further reinforce the concepts covered in a unit but will not be graded.
* **Extra Practice Problems** will be given daily. The practice problems are designed to allow a student to practice and/or reinforce a concept. These are essential for students to build the skills necessary to discuss the mathematics in the problems. If a student does not complete homework to the satisfaction of the instructor, the student will be asked to re-attempt it in a before-school session (Wednesdays 7:45am).
* There will be a great deal of group collaboration in this course. Group activities, group projects, and partner/group quizzes may be given periodically. However, each student will receive individual scores based on their individual product.

# Make-Up/Late Work Policy

* When a student is absent, it is the responsibility of the student to get the missed work.
* Make-up work should be complete within 5 school days.
* Quizzes missed must be made up before completion of the corresponding test.
* Tests missed must be made up as soon as possible and before the next formal assessment.
* All quizzes and tests are to be made up in my classroom Thursday or Friday mornings at 7:30 am.
* **All work should be submitted on the DUE DATE as notified in class or online. Each submission day after the due date will incur a 5% grade penalty, up to a maximum 25% penalty. Any grade penalty incurred will be indicated in Canvas and Infinite Campus. Work that is not submitted after the 5-day window will be marked as “Missing” in Canvas and Infinite Campus and will earn zero points.**

**Reassessment Information:**

**Relearn and Reassessment (R&R) opportunities are offered to remediate unsatisfactory scores on MAJOR grades. These opportunities are offered once per assignment, but each R&R plan (including the reassessment itself) must be completed within seven school days of receipt of the original grade. The R&R form indicates the requirements that must be met to be eligible for the opportunity.**

Students may choose to **relearn/reassess** each major assignment, **one time**.

The **relearn/reassess** cycle must be complete **no later than 7 school days** from the date the assignment grade is posted in Infinite Campus.

To be eligible for reassessing, students must have all previous assignments from that unit completed one day prior to the reassessment date.

Students earning a score below 70 on a major assignment are required to complete the relearn/reassess form for that assignment and to communicate their relearn/reassess plan to their families.  For all other students, it is optional.

Please note that the reassessment will not be the same as the original but will assess the same standards.

**Cheating Policy**

The RCSS Student Code of Conduct, Rule 1(A)(t), states that no student shall cheat, alter records, plagiarize, receive unauthorized assistance (including the use of AI when prohibited) or assist another in any type of academic dishonesty. The determination that a student has engaged in academic dishonesty will be based on the judgment of the classroom teacher and a supervising administrator, taking into consideration any written materials, observation, or information from witnesses.

Students found to have engaged in academic dishonesty will receive 3 hours of detention. Additionally, the task will be entered as an incomplete and the student is required to re-do the assignment or re-take the assessment.

## Cellphone Policy

The RCSS Student Code of Conduct, Rule 16, states that the use of cell phones, electronic communication devices, and/or accessories (including some tablets, smart watches, earbuds, and earphones) are prohibited for all students at all times during the instructional day, defined as the time the student arrives on campus until the end of the school day. Penalties are described in more detail in the Code of Conduct, but they range from confiscation of the device to suspension, which would result in disciplinary probation at DFA. Personal iPads & tablets are NOT allowed. Noncompliance: If students refuse to give up their phone/device to a staff member, they will receive two days of suspension.

## Expectations and Goals

**Expectations of the STUDENT**

Expect the best of yourself and others.

Praise others when they do well.

Evaluate your progress.

Communicate with kindness.

Take time to celebrate success.

1. Work only on current AP Calculus during the 50 minutes of class. Any extraneous material may be taken up and returned later.

2. Bring all materials needed daily.

3. Do work problems daily and give it your all! You are welcome to ask questions about work problems, but you may be asked your approach on solving the problem before your question is answered.

4. Work problems and Extra practice problems should be labeled with the date and assignment so that you can use it to help you study for unit tests and semester exams. Each problem should have three essential parts 1) Problem, 2) Work, and 3) Answer (that is called PWA). Homework should be neat and easy to follow.

5. Expect your teacher to work in a coaching capacity, which means she will expect you to use a little “elbow grease” to solve a problem instead of answering you immediately.

6. Respect others when thinking mathematically. This includes verbal discussions, board presentations, and individual time thinking through a problem.

7. Work collaboratively with other students and teacher. If you are asked to work on a problem, jump in there and do your best to solve it!

8. Ask for extra help, if needed. Schedule a time to meet with the instructor or with a classmate to receive any additional help.

9. Each student will take the first semester exam and the national AP Calculus Exam at the end of the year.

**Expectations of the TEACHER**

1. Make every effort to make this course a very challenging, yet exciting course.

2. Vary the methods of instruction to include individual and group work.

3. Introduce each student to the concepts set forth in the AP Calculus syllabus.

4. Introduce each student to “AP style” questions and how AP grades these questions.

5. Plan for adequate time to review all material so that students have an opportunity to put all concepts together.

6. Plan time for students to take an AP Practice Exam and grade it using the AP Scoring Worksheet.

7. Work diligently to create a positive, fun atmosphere.

**Expectations of the PARENT**

1. Encourage students to put forth their best effort in homework and preparation of tests.

2. Communicate to the teacher if there are any problems.

3. Encourage the student to get extra help when needed.

4. Provide an environment conducive to studying and doing homework.

5. Encourage your student to communicate with you the mathematics learned that day.

6. Monitor your student’s grades at least once weekly via the Infinite Campus Online Gradebook.

*By signing this form, I acknowledge that I have access to a copy of the course syllabus. I have read and fully understand the policies and procedures of the AP Calculus AB course, and I understand I will be held accountable for my role as a student in this course.*

Student Signature:

*sign and date here*

Parent Signature: Date: