So you want to take AP Calculus?

AP CALCULUS BC

EXPECTATIONS

- Complete daily practice/HW assignments
- Justifying and explaining your work
- Solving problems not explicitly covered in class
- Persevering in the class, even when it gets tough
- Willingness to seek help when needed

This course focuses on students' understanding of calculus concepts and provides experiences with methods and applications. You will explore the concepts, methods, and applications of differential and integral calculus, including topics such as parametric, polar, and vector functions, and series.

AP Calculus BC is the equivalent of *two* semesters of college calculus.

SIGNS OF READINESS

- Successful completion of Algebra II and Pre-Calculus
  (BC Calculus is only available to students who have completed Accelerated Pre-Calculus)
- Strong conceptual understanding of math, including:
  - a strong understanding of the following functions: polynomial, rational, radical, exponential, trigonometric, piecewise-defined, logarithmic, polar, & parametric
  - being able to both graph and solve equations with the above functions
  - be familiar algebraic transformations, combinations, compositions, and inverses for general functions.
  - working with trigonometric identities
  - firm knowledge of the unit circle and trigonometry
  - ability to solve mathematical word problems

Students will complete a summer packet assignment to practice and review pre-requisite skills. Students will have an assessment the first week of class over pre-requisite skills.

After successfully completing AP Calculus BC, you are eligible to take:

- Georgia Tech Math (application)
- AP Statistics
- Dual Enrollment Course

The Exam

Multiple Choice, No Calc.
30 Questions, 60 minutes
Multiple Choice, Calculator
15 Questions, 30 minutes
Free Response, No Calc.
2 Questions, 30 minutes
Free Response, Calculator
4 Questions, Calculator

Check colleges for requirements for earning credit.

Questions? See Mr. Brown (Room G-118)
Or email: BrownD12@fultonschools.org
Or visit: https://apstudents.collegeboard.org/courses/ap-calculus-bc

AP CALCULUS AB

EXPECTATIONS

- Complete daily practice/HW assignments
- Justifying and explaining your work
- Solving problems not explicitly covered in class
- Persevering in the class, even when it gets tough
- Willingness to seek help when needed

This course focuses on students' understanding of calculus concepts and provides experiences with methods and applications. Explore the concepts, methods, and applications of differential and integral calculus. You'll work to understand the theoretical basis and solve problems by applying your knowledge and skills.
AP Calculus AB is the equivalent of *one* semester of college calculus.

SIGNS OF READINESS

- Successful completion of Algebra II and Pre-Calculus
- Strong conceptual understanding of math, including:
  - a strong understanding of the following functions: polynomial, rational, radical, exponential, trigonometric, piecewise-defined, and logarithmic
  - being able to both graph and solve equations with the above functions
  - be familiar algebraic transformations, combinations, compositions, and inverses for general functions.
  - working with trigonometric identities
  - firm knowledge of the unit circle and trigonometry
  - ability to solve mathematical word problems

Students will complete a summer packet assignment to practice and review pre-requisite skills. Students will have an assessment the first week of class over pre-requisite skills.

Questions? See Mr. Brown (Room G-118)
Or email: BrownD12@fultonschools.org
Or visit: https://apstudents.collegeboard.org/courses/ap-calculus-ab

After successfully completing AP Calculus AB, you are eligible to take:

- AP Statistics
- Dual Enrollment Course

The Exam

Multiple Choice, No Calc.
30 Questions, 60 minutes
Multiple Choice, Calculator
15 Questions, 30 minutes
Free Response, No Calc.
2 Questions, 30 minutes
Free Response, Calculator
4 Questions, Calculator

Check colleges for requirements for earning credit.

AP Calculus AB vs. AP Calculus BC

AP Calculus AB	AP Calculus BC
Prerequisite Course: Honors PreCalculus	Prerequisite Course: Accelerated PreCalculus *Requires working knowledge of parametrically defined functions, polar functions, and series.*
Equivalent to one semester of college calculus, taught over a full school year	Equivalent of <u>two</u> semester of college calculus, taught over a full school year
Unit 1: Limits & Continuity	Unit 1: Limits & Continuity
Unit 2: The Derivative	Unit 2: The Derivative
Unit 3: Applications of Derivatives	Unit 3: Applications of Derivatives
Unit 4: More Applications of Derivatives	Unit 4: More Applications of Derivatives
Unit 5: The Integral	Unit 5: The Integral
Unit 6: Methods of Integration	Unit 6: Methods of Integration *Additional BC Only Topics:* *Integration by Parts* *Integration by Partial Fractions* *Improper Integrals*
Unit 7: Theorems of Calculus	Unit 7: Theorems of Calculus
Unit 8: Area and Volume	Unit 8: Area and Volume *Additional BC Only Topics:* *Length of a Curve*
Unit 9: Differential Equations	Unit 9: Differential Equations *Additional BC Only Topics:* Euler's Method Logistic Differential Equations
	Additional BC Only Units: Unit 10: Infinite Series & Sequences Unit 11: Taylor Series & Polynomials Unit 12: Calculus with Parametrical & Polar Functions
	Students who score at 4 or 5 on the AP Calculus BC exam can apply to take Georgia Tech Dual Enrollment course the next year.