AP Calculus AB
AP Calculus BC

Innovation Academy

2024-2025 School Year

Mr. Brown (BrownD12@fultonschools.org)

Mr. Pomerance (PomeranceD@fultonschools.org)

AP Course Overview

- College Board encourages students to take AP courses in topics they are HIGHLY interested in
  - They, along with Innovation, discourage taking AP courses to just "add to your resume"
- Check the Reported Workloads for each course to ensure you can maintain the amount of time needed for success
- Read the Essential Skills: do you have the skills needed to perform well in the class or are you just signing up because it is an AP course?

AP Calculus AB

Student Reported Workload	Teacher Report Workload
4.3 Hours Per Week	**4-5 Hours Per Week**

Pre-requisites	Students should have a strong foundation in reasoning with algebraic symbols and working with algebraic structures **80+ AP PreCalculus or Enh Adv Alg & PreCalc** **70+ on-level Calculus** ***(We highly encourage students NOT to take PreCalculus over the summer before taking AP Calculus. Those students have not been prepared for the rigor required in AP Calculus.)***
Course Summary	This course is equivalent to one semester of college calculus and covers the study functions and curves; limits and continuity; differential and integral calculus and their applications.
Essential Skills	Familiarity with functions (solving, graphing, characteristics) including linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse, and piecewise-defined functions

AP Calculus BC

Student Reported Workload	Teacher Report Workload
3.9 Hours Per Week	**4-5 Hours Per Week**

Pre-requisites	Students should have a strong foundation in reasoning with algebraic symbols and working with algebraic structures **90+ AP PreCalculus or Enh Adv Alg & PreCalc** **70+ AP Calculus AB** ***(We highly encourage students NOT to take PreCalculus over the summer before taking AP Calculus. Those students have not been prepared for the rigor required in AP Calculus.)***
Course Summary	This course is equivalent to two semesters of college calculus and covers the study functions and curve; limits and continuity; differential and integral calculus and their applications; calculus of parametric, polar, and vector functions; and series and polynomial approximations.
Essential Skills	Familiarity with functions (solving, graphing, characteristics) including linear, polynomial, rational, exponential, logarithmic, trigonometric, inverse, parametric, and polar and piecewise-defined functions

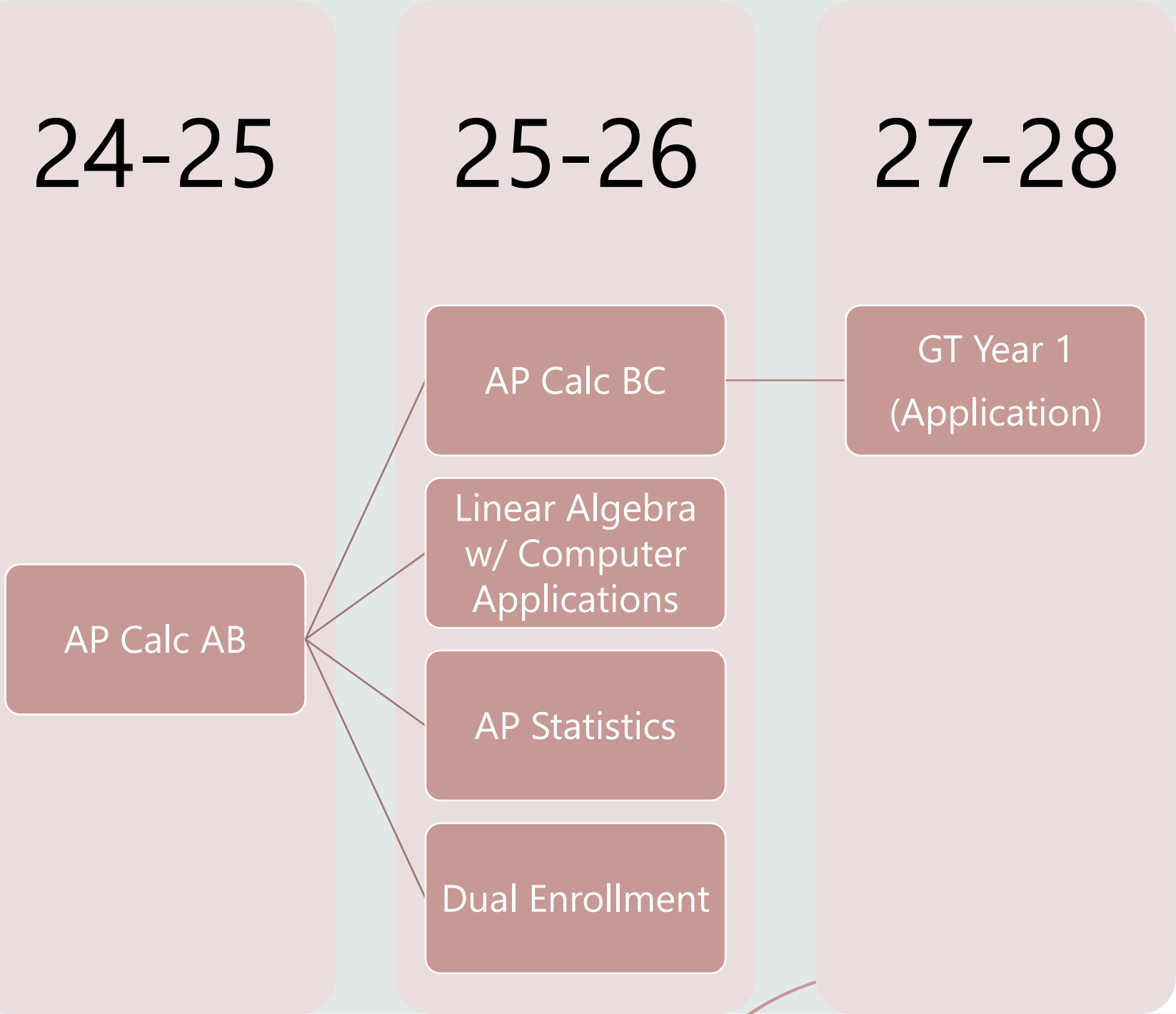
Topics: AB & BC

- Limits and Continuity
- The Derivative and Its Applications
- Logarithmic, Exponential, and Inverse Functions
- The Integral and Its Applications
- Area and Volume
- Differential Equations

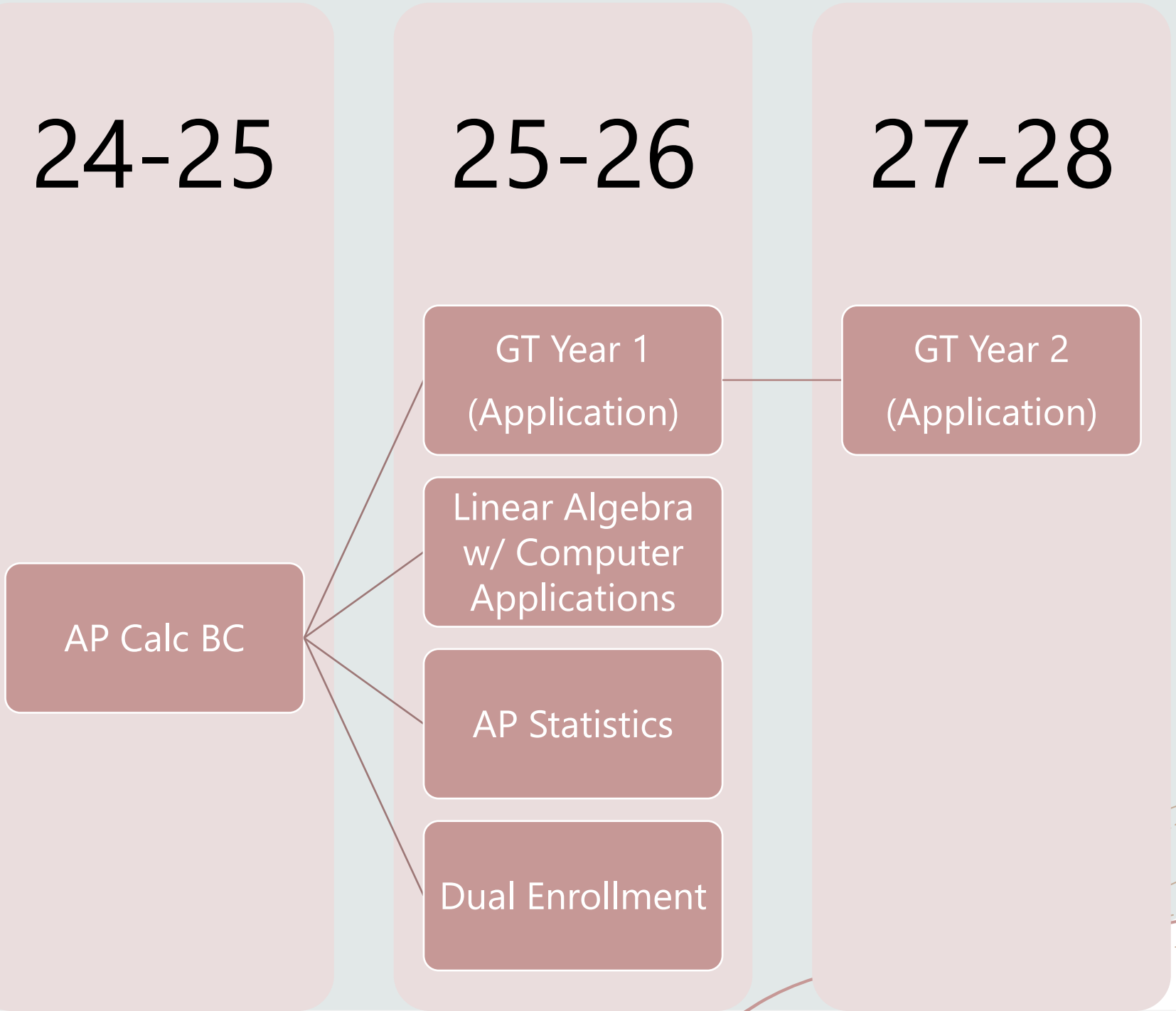
Topics: BC only (40% more than AB)

- Limits and Continuity
- The Derivative and Its Applications
- Logarithmic, Exponential, and Inverse Functions
- The Integral and Its Applications
  - *Integration by Parts*
  - *Integration by Partial Fractions*
  - *Improper Integrals*
- Area and Volume
  - *Arc Length*
- Differential Equations
  - *Euler's Method*
  - *Logistic Differential Equations*
- ***UNIT:*** *Polynomial Approximations and Series*
- ***UNIT:*** *Vector, Parametric, and Polar Functions*

Course Progression (AB)



Course Progression (BC)



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