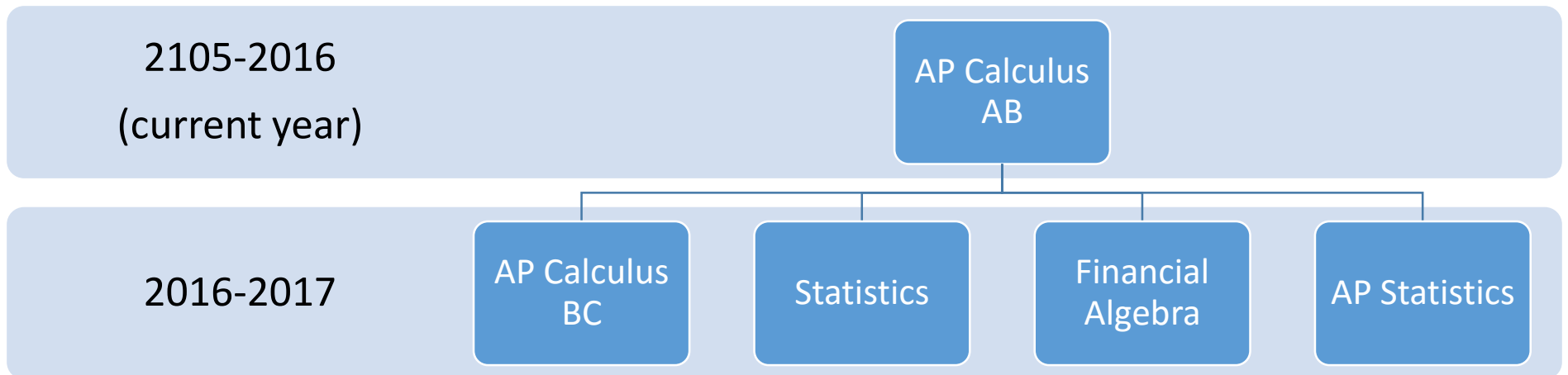
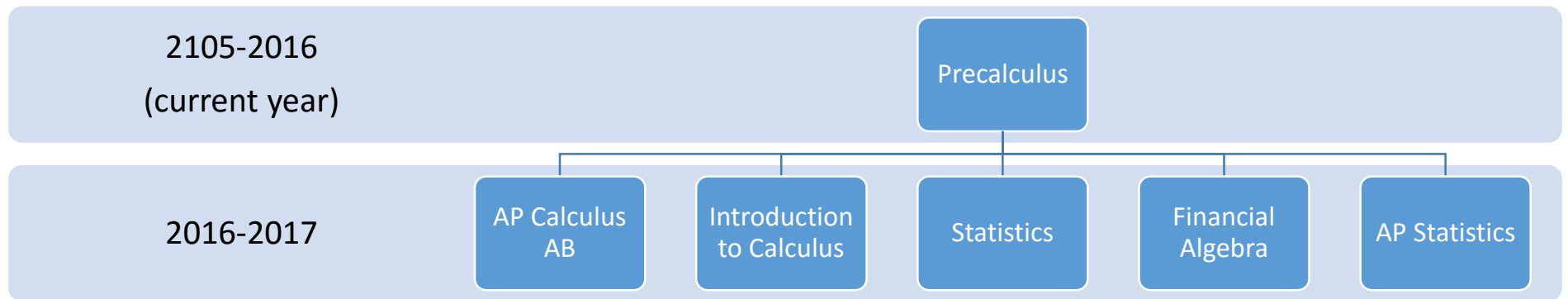


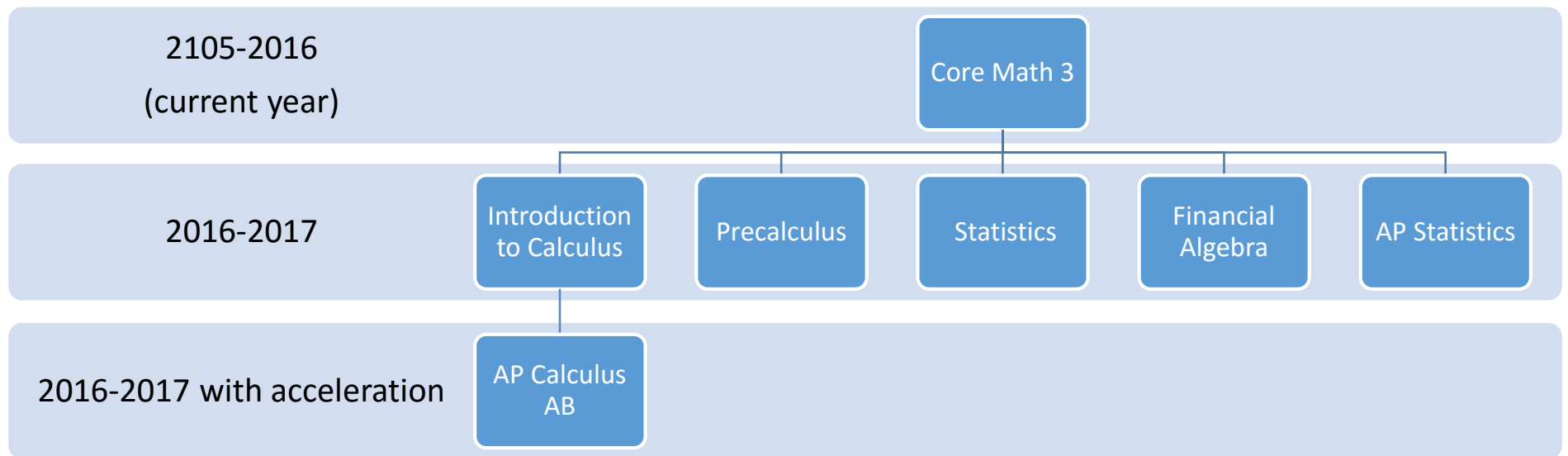
Course offerings for students **JUNIORS currently in AP Calculus AB** :



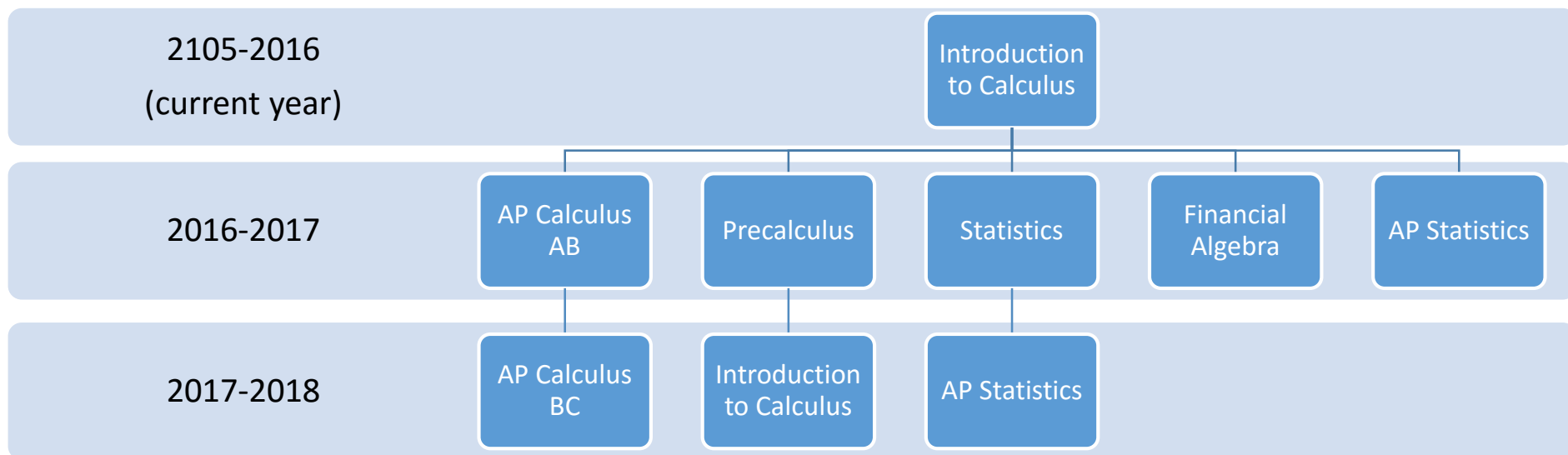
Course offerings for students **JUNIORS currently in Intro to Calculus** :



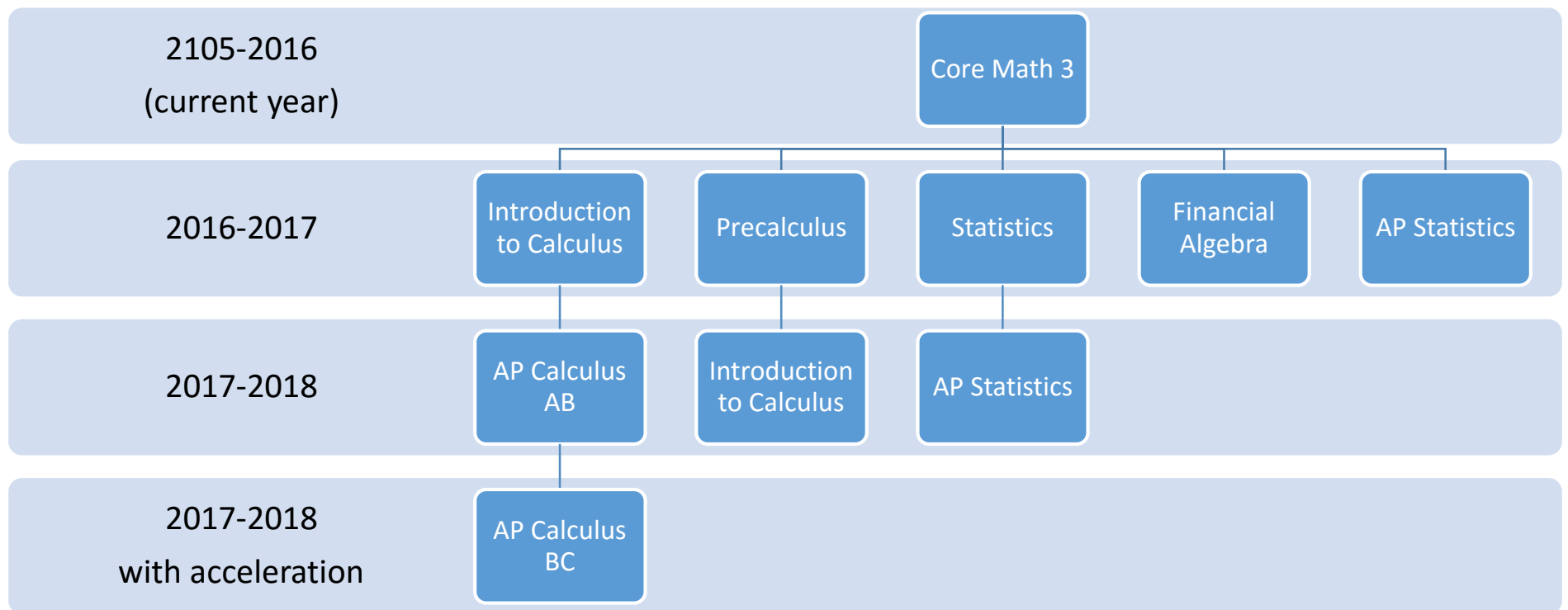
## Course offerings for JUNIORS currently in **Core Math 3** :



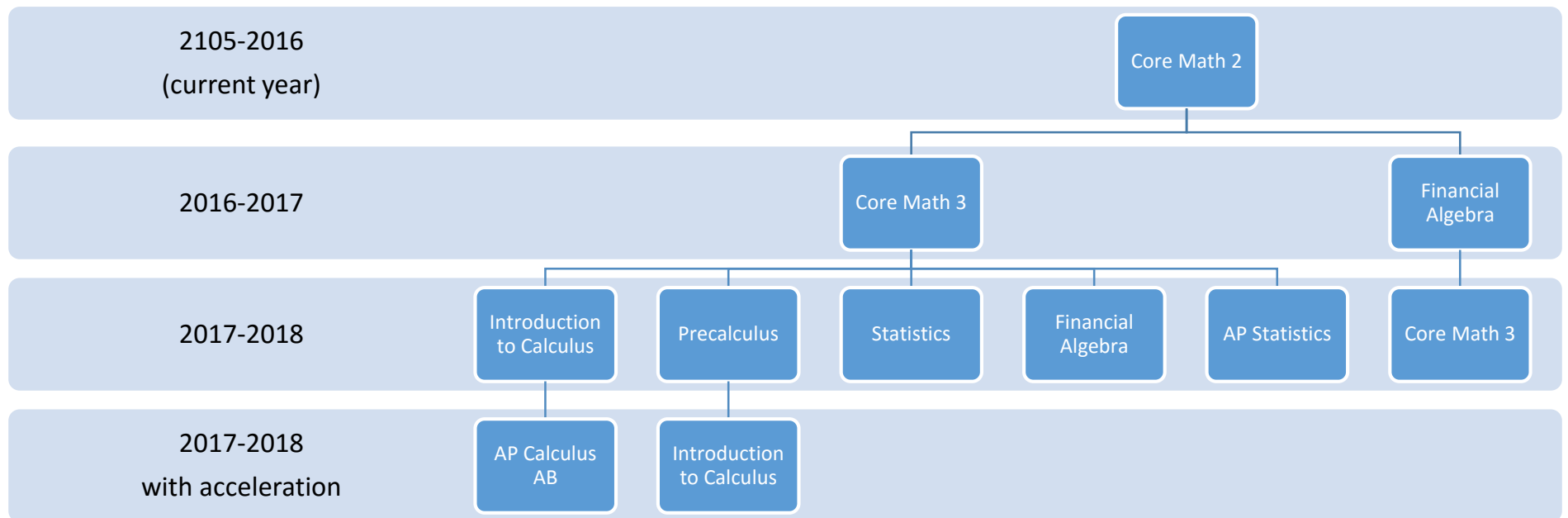
Course offerings for **SOPHOMORES currently in Intro to Calculus** :



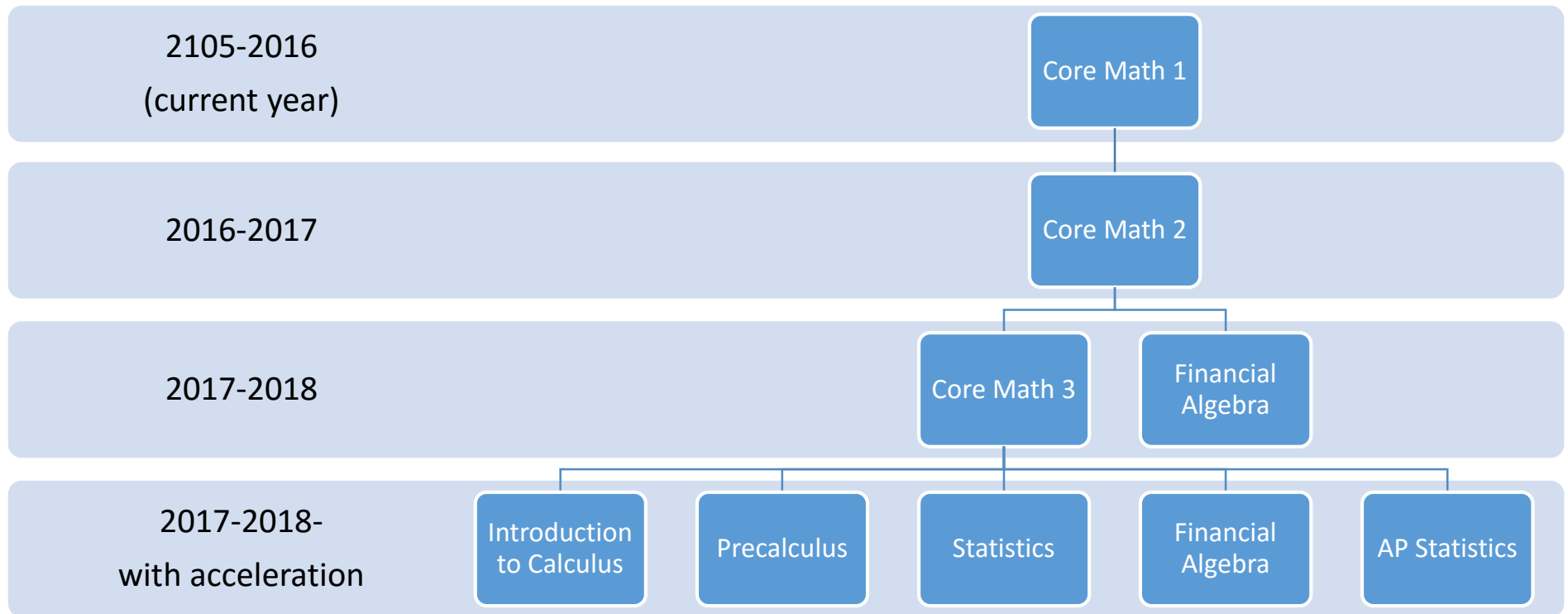
## Course offerings for SOPHOMORES currently in Core Math 3 :



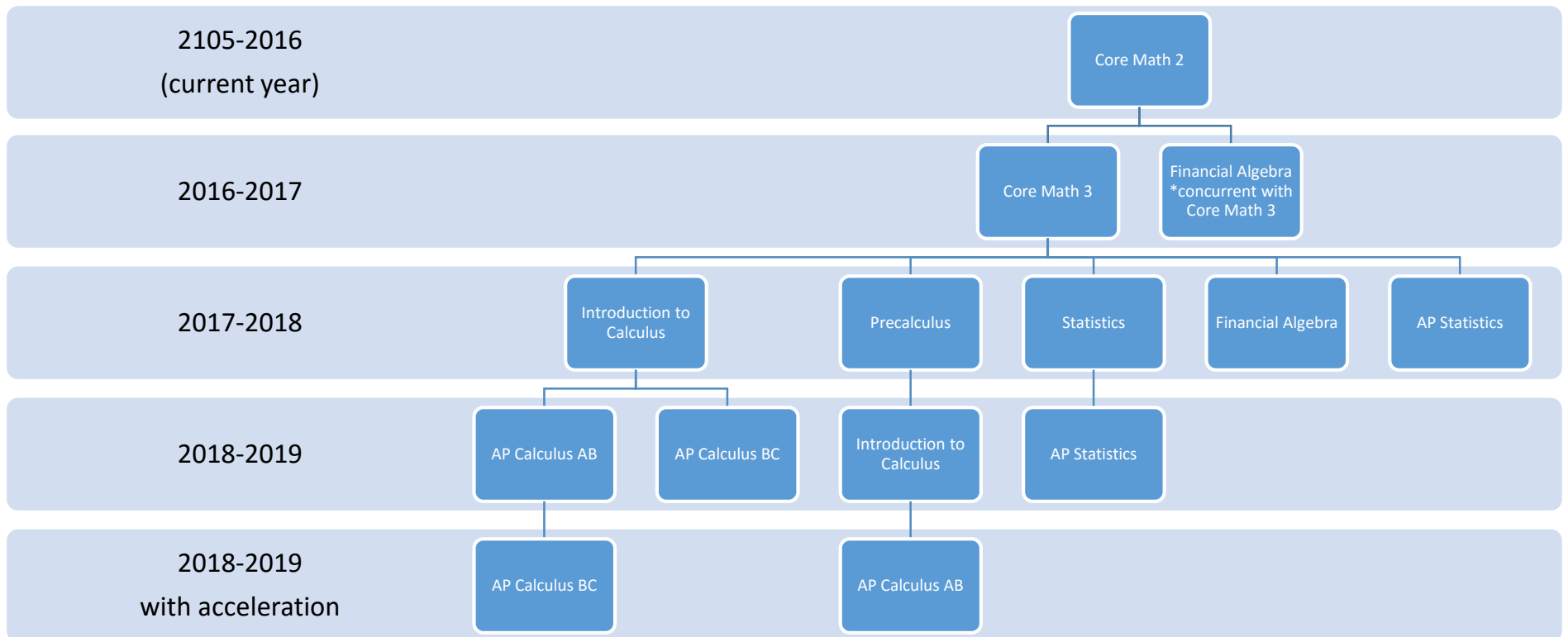
## Course offerings for SOPHOMORES currently in **Core Math 2** :



## Course offerings for SOPHOMORES currently in Core Math 1:

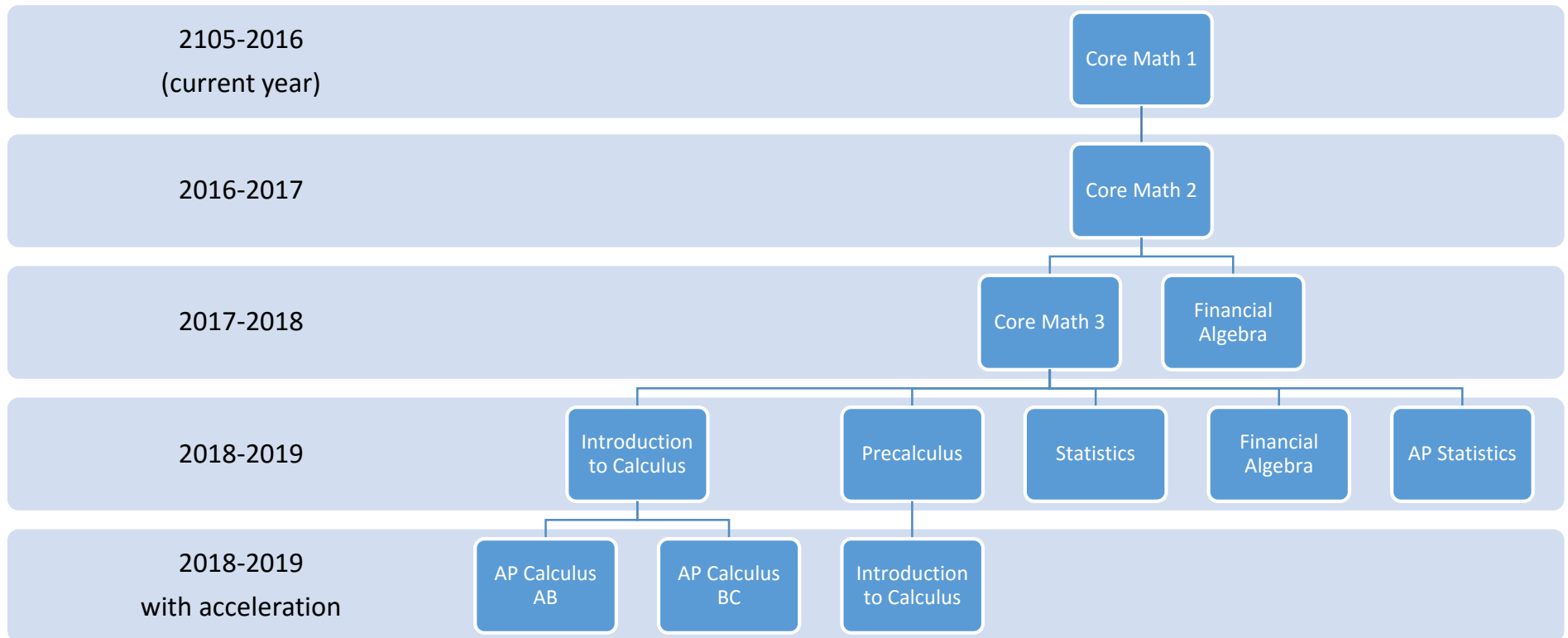


## Course offerings for FRESHMEN currently in **Core Math 2** :

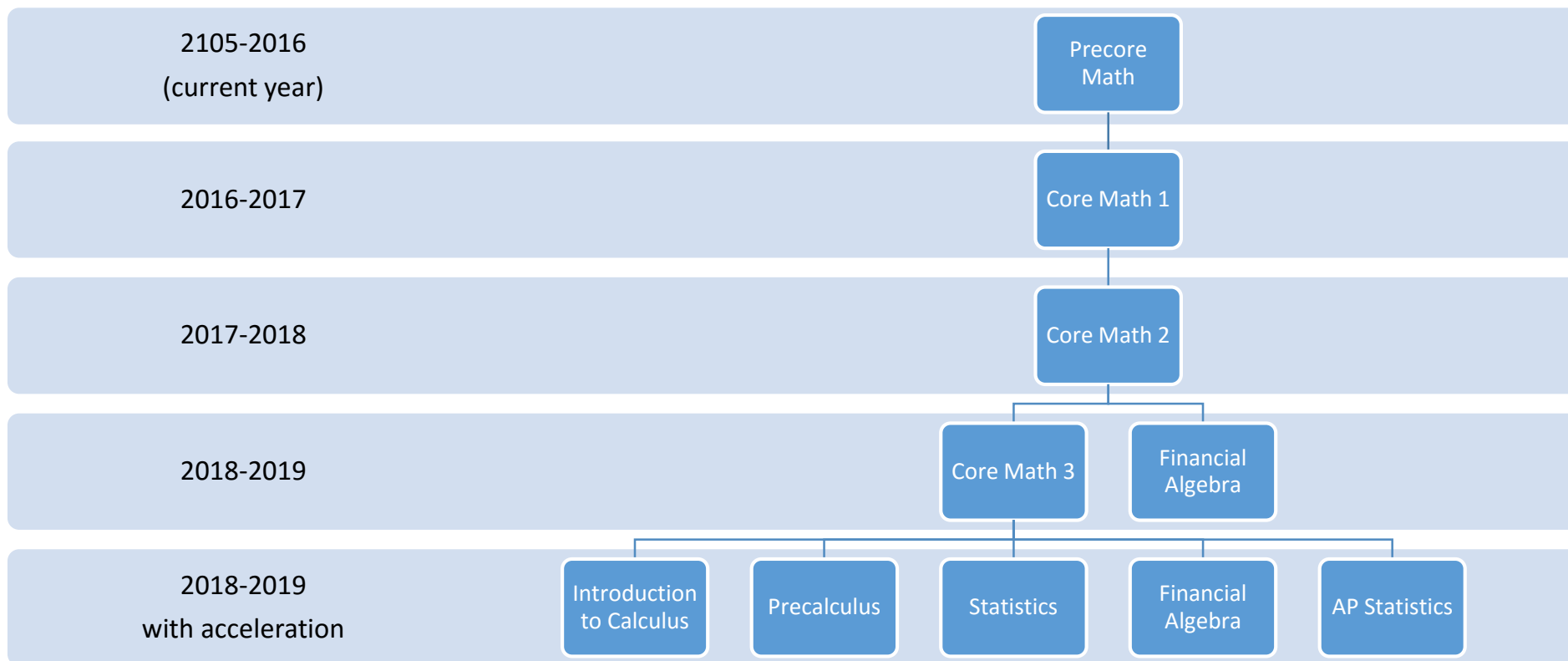




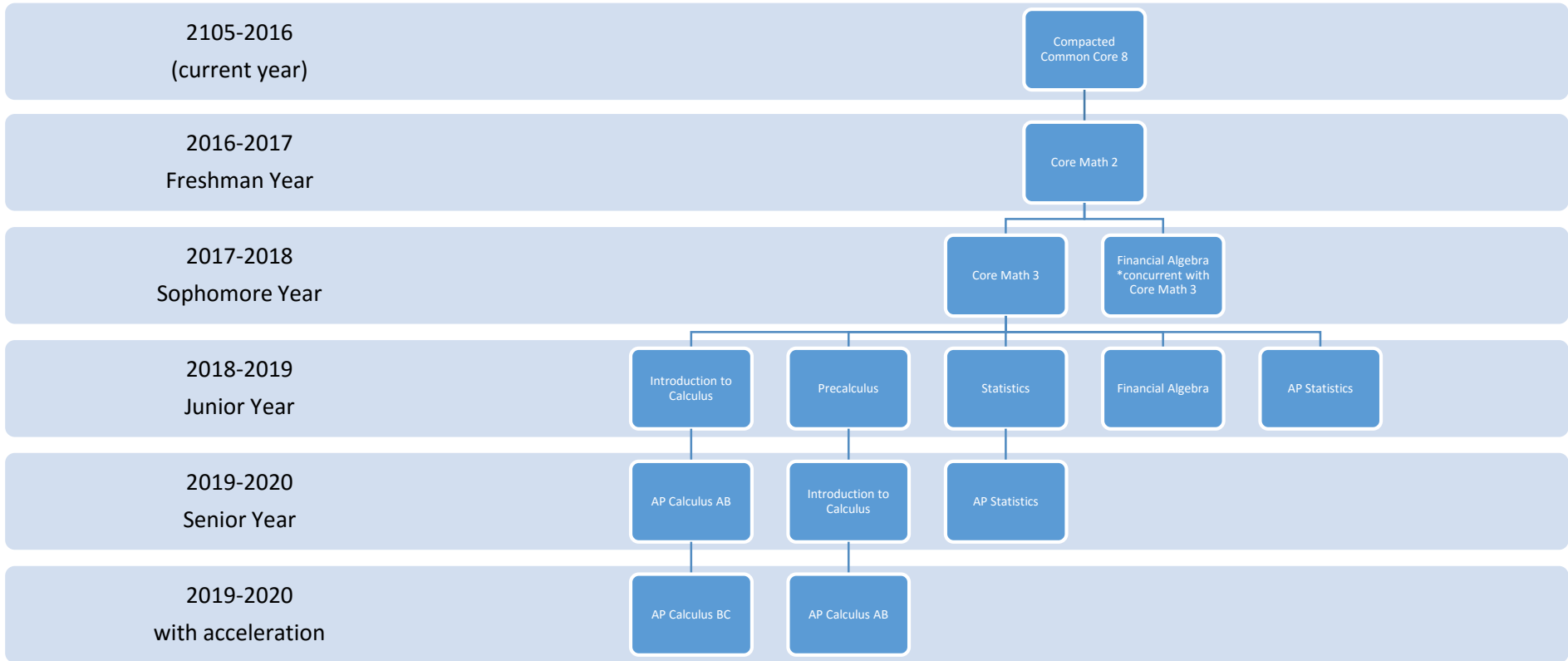
## Course offerings for FRESHMEN currently in Core Math 1 :



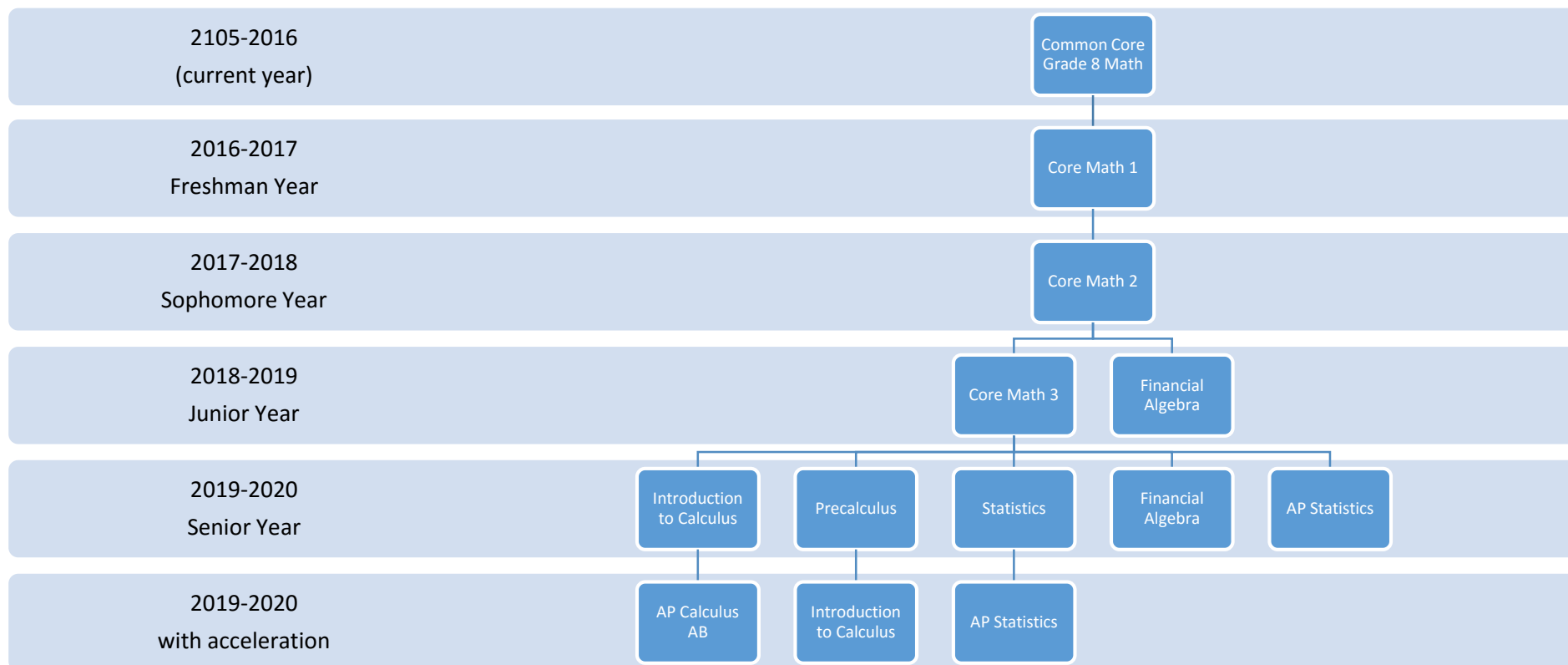
## Course offerings for FRESHMEN currently in Precore Math :



# Course offerings for 8<sup>th</sup> Graders currently in Compacted Common Core 8 :



## Course offerings for 8<sup>th</sup> Graders currently in Common Core Grade 8 Math :



# Course Descriptions from the 2016-2017 Program of Studies

## Core Math 1

*How are linear and exponential patterns modeled through mathematics?*

Students will study functions, data and geometry through the lens of linear and exponential phenomena. Students will also tie together their knowledge of geometry and algebra through the study of coordinate geometry. This course covers topic traditionally covered in Algebra 1 and Geometry courses and is aligned with the national Common Core State standards, as well as international standards.

## Core Math 2

*How can we connect mathematics to the real world?*

Students will explore topics such as variation and modeling, probability, circles, exponential curves, representations of functions and data, and logic. This course covers topics traditionally covered in Algebra 2 , Geometry and Statistics and is aligned with the national Common Core State standards, as well as international standards. Students must have successfully completed Core Math 1.

## Core Math 3

*How can we model the world through mathematics?*

Students will explore topics in data analysis, linear programming, functions (which include piecewise, polynomial, radical, rational, exponential, and logarithmic functions), geometry, trigonometry, sequences and series. This course covers topics traditionally covered in Algebra 2, Statistics and Precalculus and is aligned with the national Common Core State Standards, as well as international standards. Students must have successfully completed Core Math 2.

## Precalculus

*How can we build our knowledge of functions while establishing a firm foundation for future work in Math courses and in applications students will meet in their lives?*

Students will explore topics in functions, coordinate geometry, trigonometry, complex and polar coordinates, conic sections, and vectors. Students who are not ready for the rigorous pace of Introduction to Calculus should select this course. This course does not fulfill the prerequisite for AP Calculus but does prepare students for Introduction to Calculus. National Common Core State standards and practices are embedded throughout this course. Students must have successfully complete Core Math 3.

## Introduction to Calculus

*How can we understand the ideas of Calculus graphically, numerically, symbolically, and verbally?*

Students will complete their study of Precalculus topics during the first trimester and gain an understanding of the basic concepts of differential and integral calculus during the remainder of the year. Practical applications will be emphasized rather than theoretical aspects. Students must have successfully completed Core Math 3 or Precalculus. Students will be prepared for an entry level college calculus course. Students who successfully complete this course may take Statistics, AP Statistics or Advanced Placement Calculus AB.

## **Financial Algebra**

*How can mathematics help me better understand my financial future?*

This algebra-based, applications-oriented, technology dependent course requires Core Math 1 and Core Math 2 as prerequisites. The course addresses college preparatory mathematics topics traditionally covered in Advanced Algebra, Statistics, Probability, Precalculus, and Calculus under seven financial umbrellas: The Stock Market, Banking, Investing and Modeling a Business, Employment and Income Taxes, Automobile Ownership, Independent Living, and Retirement Planning and Household Budgeting. Students use a variety of problem solving skills and strategies in real-world contexts. Sophomores who enroll in this course must have successfully completed Core Math 2 and must be concurrently enrolled in Core Math 3.

## **Statistics**

*How can we become informed consumers of information?*

This course introduces students to the major concepts and tools for exploring data, planning a study, analyzing patterns, and drawing conclusions from data. Examples from such fields as economics, business, education, psychology, sociology, biology, and medicine will be examined. The course will rely on computer and calculator based processes to analyze data. A graphing calculator is required and will be used extensively as a problem solving tool. This course is open to students who have completed Core Math 3.

## **AP Statistics**

*What is data? How can patterns be observed through data?*

This college-level, non-calculus based course in introductory statistics is an excellent option for any student who has successfully completed precalculus. This course presents strategies for collecting, organizing, analyzing, and drawing conclusions from data. Students will work on projects involving the hands-on gathering and analysis of real world data. They will learn to interpret and judge the statistical information in the world around them. Computers and calculators will allow students to investigate and explore statistical concepts. Effective communication skills will be developed through regular written analysis of real data. Students must have successfully completed Core Math 3 and are expected to take the Advanced Placement exam.

## **Advanced Placement Calculus AB**

*How can we find rates of change at a specific instant and how can we accumulate infinitely small quantities?*

Calculus AB is an intensive college level course dealing with the mathematics of change and motion. Students will explore differential and integral calculus. Differential calculus involves finding the rate at which a variable quantity is changing. Integral calculus involves finding a function when its rate of change is known. Students should have a thorough knowledge of algebra, geometry, trigonometry, and analytic geometry. Students must have successfully completed Introduction to Calculus and are expected to take the Advanced Placement exam.

## **Advanced Placement Calculus BC**

*What is the "power" of Power Series?*

Calculus BC is a second level college course where students gain an understanding of the concepts of calculus and experience its methods and applications. Topics include: parametric, polar, and vector functions; computation and application of derivatives; techniques of antidifferentiation and application of integrals; polynomial approximations and series. Technology is used to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation, and to assist in interpreting results. Students must have successfully completed Advanced Placement Calculus AB and are expected to take the Advanced Placement exam.