

Plano ISD Course No.	Subject	Grade	Credits
15200A	Algebra I	9 - 10	1
15203A	Algebra I H/PreAP/IB	9 - 10	1
15400A	Algebra II	10 - 12	1
15403A	Algebra II H/PreAP/IB	10 - 12	1
15300A	Geometry	9 - 12	1
15303A	Geometry – H/PreAP/IB	9 - 10	1
15350A	Mathematical Models with Applications	10 - 12	1
15806A	Math Studies IB	11 – 12	1
15500A	Pre-Calculus	11 - 12	1
15503A	Pre-Calculus – H/PreAP/IB	10 - 12	1
15915A	Calculus -AB -AP	12	1
15925A	Calculus -BC –AP	12	1
15805A	Statistics AP	11 -12	1

15200A Algebra I 9 - 10 1
Prerequisite: Eighth grade mathematics (for ninth grade students)

This course is the study of the real number system and its various subsystems; algebraic representation, solution, and evaluation of problem situations; graphing as a tool to interpret linear representation, solution, and evaluation of problem situations; graphing as a tool to interpret linear relations, functions, and inequalities; quadratic equations; polynomials; rational expressions; and properties of an operations with square roots. **What's Next?** Geometry

15203A Algebra I – H/PreAP/PreIB 9 - 12 1
Prerequisite: Teacher approval, a mastery of eighth grade mathematics Texas Essential Knowledge and Skills (TEKS)

This course is designed for students who have exhibited superior mathematical ability and are ready to study high school level work. The content of this Algebra I course will include a study of the real numbers and their operations, the language of algebra, linear equations and inequalities, ratio, proportion and variations, polynomials, rational expressions, radicals, and quadratic relations. Students will receive high school credit and high school grade points. **What's Next?** Geometry or Geometry – H/PreAP/PreIB (high school)

15400A Algebra II 10 - 12 1
Prerequisite: Algebra I and Geometry

This course is the study of mathematical structure, quadratic functions, quadratic relations, conic sections, systems of equations, and numerical methods and higher degree polynomials. **What's Next?**Pre-Calculus

15403A Algebra II- H/PreAP/PreIB 10 - 12 1
Prerequisite: Algebra I H/PreAP/PreIB, Geometry H/PreAP/PreIB, and teacher approval

Students will study the same topics as defined in Algebra II plus additional topics in sequences, series, and probability. In addition, more emphasis will be given to algebraic proof of theorems. Higher levels of understanding such as relationship of ideas, analysis, synthesis, and evaluation will be stressed. Since this is an Honors course, teachers and students will be discussing problems normally not covered in a regular course. **What's Next?** Pre-Calculus H/PreAP/PreIB or Pre-Calculus

15300A Geometry 9 - 12 1
Prerequisite: Algebra I

The study of axiomatic systems; lines, segments, and angles; triangles; other polygons; circles; solid geometry; and measurement. **What's Next?** Algebra II

15303A **Geometry – H/PreAP/PreIB** **9 - 10** **1**
Prerequisite: **Algebra I H/PreAP/PreIB**

The student will study the same topics as defined for Geometry plus advanced topics in space geometry. Since this is an advanced course, students will be discussing problems and concepts not normally covered in a regular course. Higher levels of understanding such as relationships of ideas, analysis, synthesis, and evaluation will be stressed.
What's Next? Algebra II H/PreAP/PreIB or Algebra II

15350A **Mathematical Models with Applications** **10 - 12** **. 5-1**
Prerequisite: **Algebra I**

This course is the study of problem solving and decision making related to earning, spending, borrowing, and investing money. Topics are addressed at an advanced level and include mathematical topics such as mathematical modeling, linear programming, ratio and proportion, systems of equations and inequalities, probability and statistics, and geometric progressions. Computer graphing techniques and spreadsheets are used. **This course may not be offered on all campuses. What's Next?** Geometry, Algebra II

15806A **Math Studies IB** **11 – 12** **1**
Prerequisite: **Algebra II**

This course will concentrate on the following concepts: the three major trigonometry functions, statistics, probability, functions, logic, and data analysis. This course will provide a 4th year of math alternative to pre-calculus for students who experience limited success in Algebra II.

15500A **Pre-Calculus** **11 - 12** **1**
Prerequisite: **Algebra II and Geometry**

This course is the study of relations, functions, and their graphs; polynomial functions; rational functions and functions involving radicals; exponential and logarithmic functions; circular trigonometric functions, their properties, and applications; complex numbers and polar coordinates; vectors and parametric equations; sequences and series; and second degree relations. Graphing calculators will be used extensively in this course. This course fulfills all the objectives of a traditional trigonometry course. In addition, this course prepares the students for calculus. **What's Next?** Calculus AB - AP

15503A **Pre-Calculus – H/PreAP/PreIB** **10 - 12** **1**
Prerequisite: **Algebra II H/PreAP/PreIB and Geometry H/PreAP/PreIB**

Pre-Calculus is an honors course, which combines the elements of Trigonometry, Elementary Analysis, and Analytic Geometry. This course is an in-depth study of the real and complex numbers, functions (polynomial, rational, exponential, logarithmic, circular, and trigonometric), vectors, sequences and series, and second-degree relations. Students who satisfactorily complete this course may take calculus. **What's Next?** Calculus BC - AP

15915A **Calculus AB - AP** **12** **1**
15925A **Calculus BC - AP**
Prerequisite: **Pre-Calculus**

Calculus AB - AP: This course is the study of elementary functions; limit of a function; derivative; integral and techniques of integration; and applications of calculus to real-world problems in the fields of life science, business and economics, social science, physics, and engineering.

Calculus BC - AP: Calculus BC represents one semester beyond Calculus AB. It covers all the topics in Calculus AB, but is more extensive. Students cover the additional topics of vector functions, polar coordinates, and Epsilon-delta proofs.

Each course prepares the student to take the corresponding Advanced Placement exam.

15805A **Statistics – AP** **11 - 12** **1**
Prerequisite: **Pre-Calculus or concurrently enrolled in Pre-Calculus**

Statistics AP is built around four main topics: exploring data, planning a study, understanding probability theory, and acquiring critical inferential reasoning skills. Students will actively participate in both short and long-term "hands-on" projects. TI-83 calculators and various computer programs will be used on a regular basis. This course prepares the student to take the Advanced Placement exam.