

Broward County Public Schools Curriculum Guide

10th Grade

ALGEBRA 1

The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the middle grades. The critical areas, called units, deepen and extend understanding of linear and exponential relationships by contrasting them with each other and by applying linear models to data that exhibit a linear trend, and students engage in methods for analyzing, solving, and using quadratic functions.

FINANCIAL ALGEBRA

Financial Algebra is designed for students who have completed Algebra 1 or Geometry by ninth grade. The course would be a bridge to upper-level mathematics such as Algebra 2 and Mathematics for College Readiness. It is targeted for students who need additional instruction in content to prepare them for success in upper-level mathematics. The focus of this course, is to provide a real-life financial literacy framework that can be applied to upper-level mathematics standards. In our consumer-based society, this course addresses the results of financial decisions that will result in more fiscally responsible citizens.

****LIBERAL ARTS 1**

This course is designed to help students meet the requirements of Florida's state standards for mathematics. In addition to addressing and assessing the proficiencies specified within the content standards of the traditional pathway, the course provides students opportunities to apply knowledge and skills to complex real world situations. Students will explore basic algebraic fundamentals such as evaluating, creating, solving and graphing linear, quadratic, and polynomial functions.

GEOMETRY

This course is designed for students that successfully has completed Algebra 1 Honors by eighth grade. The fundamental purpose of the course in Geometry is to formalize and extend students' geometric experiences from the middle grades. Students explore more complex geometric situations and deepen their explanations of geometric relationships, moving towards formal mathematical arguments.



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10th GRADE **GEOMETRY HONORS**

This course is designed for students that successfully has completed Algebra 1 Honors by eighth grade. Geometry is the study of logical reasoning. The fundamental purpose of the course is to study that points, lines, and planes are used as the building blocks of geometric figures, and as the basic models from which to reason. Emphasis is placed on formal proofs and problem-solving involving algebra skills.

10th GRADE **ALGEBRA 2**

This course is designed for students who have successfully completed Geometry by ninth grade. The fundamental purpose of this course is to prepare students to take Pre-Calculus and Statistics. This course is designed to build on algebraic and geometric concepts. It develops advanced algebra skills such as systems of equations, advanced polynomials, imaginary and complex numbers, quadratics, and concepts and includes the study of trigonometric functions.

10th GRADE **ALGEBRA 2 HONORS**

This course is designed for students who have successfully completed Geometry or Geometry Honors by ninth grade. This course is designed for students who have demonstrated exceptional ability and motivation in mathematics and will meet the needs of students who anticipate entering college majors requiring an extensive mathematical background. This provide students with an in-depth level of instruction, an accelerated pace and a cooperative learning environment. Building on their work with linear, quadratic, and exponential functions, students extend their repertoire of functions to include polynomial, rational, and radical functions. Students work closely with the expressions that define the functions, and continue to expand and hone their abilities to model situations and to solve equations, including solving quadratic equations over the set of complex numbers and solving exponential equations using the properties of logarithms.



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ANLYSIS OF FUNCTIONS /TRIG

This course is designed for students who successfully have completed Algebra 2 Honors by ninth grade. It is designed to prepare students for further study of mathematics at the college level. It prepares students for Pre-calculus. Students learn more in-depth topics such as the family of functions (e.g. polynomial, rational, exponential, logarithmic, and trigonometric), limits, derivatives, vectors, matrices, sequences, and series will be undertaken.



PRE- CALCULUS

This course is designed for students who successfully have completed Algebra 2 Honors by ninth grade. This course covers topics in Algebra ranging from polynomial, rational, and exponential functions to conic sections. Trigonometry concepts such as Law of Sines and Cosines will be introduced and get students ready for Calculus.

