Accelerated classes are geared to those who have good critical thinking skills and who are not challenged in a regular mathematics classroom. The instruction moves fast with fewer examples and goes into more depth on some topics. Students are expected to be highly motivated and self-directed. Supplementary topics are also explored. Intellectual curiosity is a must!

Honors classes move at a steady pace with more examples than accelerated. They are challenging, but not as demanding as accelerated. They are designed for students who are able to grasp the concepts without much repetition needed. Honors classes are for good math students who need a little more reinforcement but are still ready for a challenge.

College Prep classes are designed for those students who are not “natural mathematicians” and need a little more repetition and instruction. The pace is slower and the focus is on basic concepts that help the students succeed on the SAT and ACT and core level college classes, while preparing them for the next level of high school math.

**MATH 6 / MATH 6 • MATH 6-H / HONORS MATH 6**

6th Grade Math is a comprehensive, well-balanced program that prepares middle school students for success in algebra and geometry. Through a carefully planned curriculum of mathematical topics, students practice and extend their knowledge of mathematics to promote mastery and confidence. Instructional areas include Number Theory and Operations, Algebra, Geometry, Measurement, and Data Analysis and Probability. The curriculum will enable students to enhance problem solving, develop reasoning and proof, improve communication, and make connections to math ideas. The purpose of sixth grade math is to build a strong math foundation and to give students the tools and strategies to prepare them for success in future math classes.

**Textbook(s):** Holt McDougal’s Georgia Mathematics, Grade 7

**PREALG / PRE-ALGEBRA 6**

Pre-Algebra is an important bridge between the concrete arithmetic of the younger grades and the more abstract concepts of Algebra. This course has a general goal of moving students toward a more abstract way of thinking. Students become more confident problem solvers as they progress through this course. The foundations of Algebra begin here and are expanded throughout the course. These algebraic foundations are essential to master before moving on to the next step.

**Textbook(s):** Holt McDougal’s Pre-Algebra Common Core Edition

**PREALG / PRE-ALGEBRA • PREALG-H / HONORS PRE-ALGEBRA (7TH GRADE)**

This 7th grade course eases the transition from arithmetic to algebra. Algebraic expressions and linear equations are applied throughout a thorough review of operations on integers, fractions, decimals, percentages, and radicals. Students explore relations and functions using equations, tables, and graphs. Chapters on statistics and geometry extend foundational concepts in preparation for high school courses. Problem solving and real-life uses of math are featured in each unit of study.
**Textbooks(s):** Larson Pre-Algebra published by Holt McDougal/Georgia Mathematics Grade 8 published by Holt McDougal

**ALG 1/Algebra I (7th Grade)**

This is a first year algebra course in which 7th grade students will build upon the algebraic foundation laid in pre-algebra and learn to reason symbolically. The key content involves writing, solving, and graphing linear equations, including systems of two linear equations in two unknowns. Quadratic equations are solved by factoring or by application of the quadratic formula. The course also includes study of monomial and polynomial expressions, inequalities, exponents, functions, rational expressions, ratio, and proportion. Algebraic skills are applied in a wide variety of problem-solving situations.

**Textbook(s):** Big Ideas Math Algebra 1 published by Big Ideas Learning

**ALG 1/Algebra I (8th Grade)**

In this 8th grade course we will be reviewing and building on the concepts your child learned in pre-algebra. We will start with a quick review of the basic algebraic concepts (variables, order of operations, and problem solving skills). Then we will move into solving linear equations and inequalities (with integers, fractions, and decimals), graphing equations, and working with functions. The skills students learn in this class will provide a basis for additional courses they take throughout high school and college. They will also begin to prepare the students for standardized testing and college entrance exams.

**Textbooks(s):** Algebra Structure and Method (The Classic) published by McDougal Littell

**ALG 1-H / Honors Algebra I (8th Grade)**

In this 8th grade course we will be reviewing and building on the concepts your child learned in pre-algebra. We will start with a quick review of the basic algebraic concepts (variables, order of operations, and problem solving skills). Then we will move into solving linear equations and inequalities (with integers, fractions, and decimals), graphing equations, and working with functions. The skills students learn in this class will provide a basis for additional courses they take throughout high school and college. They will also begin to prepare the students for standardized testing and college entrance exams.

**Textbooks(s):** Algebra Structure and Method (The Classic) published by McDougal Littell

**Geometry (8th Grade)**

Geometry provides 8th grade students with a way to link their perceptions of the real world with the mathematics that allows them to solve a variety of problems they will encounter in other disciplines and in their everyday lives. This course extends beyond the traditional treatment of geometric shapes taught in previous grades, and employs the deductive system to draw conclusions for general cases. Much emphasis is placed on problem solving and in real world applications of geometric shapes. Algebraic skills are implemented to solve geometric problems. The prerequisite for Geometry is a competency in Algebra I. An introduction to Trigonometry is provided in this course. The use of deductive reasoning is also developed, which proves necessary for all subsequent mathematics courses.

**Textbook(s):** Glencoe Geometry published by McGraw Hill
GEOM / GEOMETRY (27.0630000)

Geometry provides students with a way to link their perceptions of the real world with the mathematics that allows them to solve a variety of problems they will encounter in other disciplines and in their everyday lives. This course extends beyond the traditional treatment of geometric shapes taught in previous grades, and employs the deductive system to draw conclusions for general cases. Much emphasis is placed on problem solving and in real world applications of geometric shapes. Algebraic skills are implemented to solve geometric problems. The prerequisite for Geometry is a competency in Algebra I. An introduction to Trigonometry is provided in this course. The use of deductive reasoning is also developed, which proves necessary for all subsequent mathematics courses.

Textbook(s): Glencoe Geometry published by McGraw Hill

GEOM-ACC / ACCELERATED GEOMETRY (27.0630040)

Geometry provides students with a way to link their perceptions of the real world with the mathematics that allows them to solve a variety of problems they will encounter in other disciplines and in their everyday lives. This course extends beyond the traditional treatment of geometric shapes taught in previous grades, and employs the deductive system to draw conclusions for general cases. Much emphasis is placed on problem solving and in real world applications of geometric shapes. Algebraic skills are implemented to solve geometric problems. The prerequisite for Geometry is a competency in Algebra I. An introduction to Trigonometry is provided in this course. The use of deductive reasoning is also developed, which proves necessary for all subsequent mathematics courses.

Textbook(s): Glencoe Geometry published by McGraw Hill

ALG2 / ALGEBRA II (27.0640000)

Algebra II emphasizes functions. Appropriate uses of tools such as graphing calculators must be made throughout the course. Their use greatly facilitates visualization of concepts and applications of carried topics. The Algebra II curriculum is both extensive and comprehensive. New topics include logarithms, sequences and series, probability and statistics, and advanced degree equations. The prerequisite for Algebra II is Algebra I. Students enrolled in Algebra II enter after taking Geometry, but need a solid understanding of the concepts taught in Algebra I to succeed. Some topics from Algebra I will be reviewed and explained.

Textbook(s): Glencoe Algebra 2 published by McGraw-Hill

ALG2-H / HONORS ALGEBRA II • ALG2-ACC / ACCELERATED ALGEBRA II (27.0640040)

The first semester of Algebra 2 predominantly reviews and expands topics from Algebra 1. These topics include first degree/linear equations and inequalities, relations and functions, systems of equations and inequalities, matrices, polynomials, exponent’s, radicals, and second degree/quadratic functions and equations. We then move on to higher order polynomial functions and radical equations. Second semester covers advanced functions and relations including conic sections, rational expressions and equations, and exponential and logarithmic relations. The course is completed with discrete mathematics, which includes sequences and series followed by probability and statistics. Almost everything is related to the coordinate plane, so we do a great deal of graphing throughout the year.

Textbook(s): Glencoe Algebra 2 published by McGraw-Hill
PRECAL / PRE-CALCULUS • PRECAL-H / HONORS PRE-CALCULUS • PRECAL-ACC / ACCELERATED PRE-CALCULUS (27.0650000)

Pre-Calculus is a combination of advanced algebra, trigonometry, elementary analysis, and analytical geometry. The primary purpose of Pre-Calculus is to provide students with the foundation necessary to be successful in higher-level math courses whether those courses are taken in high school or college. Much emphasis is placed upon problem solving and real world applications of topics studied. Emphasis is placed on trigonometry, conic sections, matrices, and an in depth understanding of functions. The prerequisite for Pre-Calculus is Algebra II. Students enrolled in Pre-Calculus need a good understanding of Algebra II topics to be successful.

Textbook(s): Glencoe Pre-Calculus published by McGraw Hill

CALCULUS (27.0710000)

Calculus is a course that emphasizes rates of change. The course is broken down into four parts: a review of functions, limits and continuity, derivatives, and anti-derivatives with the majority of the content covering derivatives and anti-derivatives. First semester deals with derivatives and their applications while second semester focuses on anti-derivatives and their applications. Second semester also contains preparation for college algebra and some personal finance. Calculus is a course designed for students who want a calculus course in high school but cannot handle the rigors of AP Calculus. The prerequisite for Calculus is Pre-Calculus.

Textbook(s): Calculus, Graphical, Numerical, Algebraic published by Pearson, Prentice Hall

APCAL / AP CALCULUS AB/BC (27.0720000)

Calculus is a course that emphasizes rates of change. The course is broken down into four parts: a review of functions, limits and continuity, derivatives, and anti-derivatives with the majority of the content covering derivatives and anti-derivatives. First semester deals with derivatives and their applications while second semester focuses on anti-derivatives and their applications. Second semester also contains preparation for college algebra and some personal finance. Calculus is a course designed for students who want a calculus course in high school but cannot handle the rigors of AP Calculus. The prerequisite for Calculus is Pre-Calculus.

Textbook(s): Calculus, Graphical, Numerical, Algebraic published by Pearson, Prentice Hall

AP STATISTICS (27.0740000)

Students must apply for this course. Attendance, grades, and teacher recommendations are considered for placement in this class.

AP Statistics is the high school equivalent of a one semester, introductory college statistics course. In this course, students develop strategies for collecting, organizing, analyzing, and drawing conclusions from data. Students design, administer, and tabulate results from surveys and experiments. Probability and simulations aid students in constructing models for chance behavior. Sampling distributions provide the logical structure for confidence intervals and hypothesis tests. Students use a Ti-nspire CX graphing calculator, Minitab statistical software outputs, and Web-based java applets to investigate statistical concepts. To develop effective statistical communication skills, students are required to prepare frequent written and oral analyses of real data.

MA102 / College Algebra (27.084000) Dual Enrollment

This class is designed to mimic a college algebra class in college. Basically, this course is the Algebra II curriculum compacted into one semester. Students who achieve a “B” average are granted college credit for most colleges. This is a one-semester class.

Textbook(s): College Algebra, 4th Edition published by Best Value Textbooks

MA201 / Statistics (27.0510000) Dual Enrollment

Today statistical methods are used in almost all fields of study at the college level. The goal of this course is to prepare the college bound student interested in the fields of business, liberal arts, and social sciences. This course covers non-calculus based statistics. Topics covered include: data organization, and description, probability, sampling, hypothesis testing, analysis of variation and linear regression. The prerequisite for this course is Pre-Calculus. This is a one-semester course. Students who achieve a “B” average are granted college credit for most colleges.