MATHEMATICS CURRICULUM

Calculators are widely used at home and in the workplace. Increased use of calculators in school will ensure that students' experiences in mathematics will match the realities of everyday life, develop their reasoning skills, and promote the understanding and application of mathematics. Research and experience have clearly demonstrated the potential of calculators to enhance students' learning in mathematics. The calculator is an essential tool for all students of mathematics. ***(Calculators and the Education of Youth, NCTM, 1991.)***

Title:	**Algebra 1**	**ALGICP / 411101CW**
Unit Credit	1	
Grade Levels	7-10	
Prerequisite	Pre-Algebra or equivalent	

This course offers elementary algebraic content to students preparing for four-year or technical college experiences and others desiring a formal background in mathematics. It meets the state Algebra 1 standards and is intended for motivated students of average or above average skills in mathematics. Students in this course must take a state-mandated end-of-course test.

Title:	**Algebra 1 Honors**	**ALGIH / 411103HW**
Unit Credit	1	
Grade Levels	7-10	
Prerequisite	Pre-Algebra with teacher recommendation	

This is an honors-level course for students who have been highly successful in middle school mathematics. This course will be a more extensive study of the algebraic concepts traditionally covered in Algebra 1. It is an **intense** program that includes all topics taught in Algebra 1 as well as additional enrichment topics. Students in this course must take a state-mandated end-of-course test.

Title:	**Algebra 2**	**ALGIICP / 411201CW**
Unit Credit	1	
Grade Levels	9-12	
Prerequisite	Algebra 1 or Math Tech 1 and 2	

This course offers intermediate algebraic content to students preparing for four-year or technical college experiences. The course includes complex numbers, matrices, relations, functions and equations- including linear, quadratic, exponential, radical, absolute value, and rational. Conic sections are also addressed.

Title:	**Algebra 2 Honors**	**ALGIIH / 411203HW**
Unit Credit	1	
Grade Levels	9-11	
Prerequisite	Algebra 1with Math teacher recommendation or Algebra 1 Honors	

This is an honors-level course for students who have been highly successful in Algebra 1 or Algebra 1 Honors and who are candidates for AP Calculus. This course will be a more extensive study of the algebraic concepts traditionally covered in Algebra 2 and includes the study of logarithmic and polynomial functions. Students will be required to work with more intensity, at a deeper level, and produce a wider range of more complex and difficult material.

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Title:	**Geometry**	**GEOMCP / 412101CW**
Unit Credit	1	
Grade Levels	8-12	
Prerequisite	Algebra 1 or Algebra 1 Honors	

This course utilizes mathematical proof in the development of two and three-dimensional geometric concepts and properties for students preparing for academic or technical college experiences and others desiring a formal background in mathematics. Other topics include angle measurements and relationships, line relationships, properties of polygons and solids, similarity and congruence, the Pythagorean relationship, circles and constructions, area, volume, and transformations.

Title:	**Geometry Honors**	**GEOMH / 412103HW**
Unit Credit	1	
Grade Levels	8-11	
Prerequisite	Algebra 1 Honors or Algebra 1 with Math teacher recommendation	

This honors-level course is for motivated mathematics students who are candidates for AP Calculus. It includes all topics taught in Geometry as well as a unit in formal logic and other enrichment topics.

Title:	**Math Tech 1: Algebra 1A**	**MTICP / 314101TW**
Unit Credit	1	
Grade Levels	9-10	
Prerequisite	Pre Algebra or equivalent	

This course is the first half of a two-course program. It is a survey course that includes topics covered in the first part of Algebra 1 as well as problem-solving techniques, estimations, measurement, geometry, and data analysis. The course emphasizes the application of mathematics in solving real workplace problems in a hands-on environment.

Title:	**Math Tech 2: Algebra 1B**	**MTIICP / 314201TW**
Unit Credit	1	
Grade Levels	10-11	
Prerequisite	Math Tech 1	

This course is the second half of a two-course program that begins with Math Tech 1. It is a survey course that includes topics covered in the second part of Algebra 1 as well as problem-solving techniques, estimations, measurement, geometry, and data analysis. The course emphasizes the application of mathematics in solving real workplace problems in a hands-on environment. Math for the Technologies 1 and 2 followed by successful completion of Algebra 2 is recognized as Algebra 1 by S.C. public colleges and universities. Students in this course must take the state-mandated end-of-course test for Algebra 1.

Title:	**Math Tech 3: Applied Geometry**	**MTIIICP / 314301TW**
Unit Credit	1	
Grade Levels	10-12	

Prerequisite Algebra 1 or Math Tech 1 and 2

This course offers applied geometry content for students preparing for four-year or technical college. The emphasis is on solving real workplace problems involving two and three-dimensional geometric concepts. These concepts include angle measurement and relationships, properties of polygons and solids, similarity and congruence, the Pythagorean relationship, circles and spheres, and constructions.

Title: **Probability and Statistics** **PSCP / 414101CW**
Unit Credit 1
Grade Levels 11-12
Prerequisite Algebra 2

This course is a broad introduction to the concepts of probability and statistics. Topics will include probability; collection, display, and analysis of data; permutations and combinations; binomial, normal and t-distributions.

Title: **Precalculus** **PCALCP / 413101CW**
Unit Credit 1
Grade Levels 10-12
Prerequisite Geometry, Algebra 2

Precalculus is a program of mathematical studies focusing on the development of the student's ability to understand and apply the study of functions and advanced mathematics concepts to solve problems. The course will include a thorough study of polynomial, rational, exponential, logarithmic, and trigonometric functions. Other topics studied are sequences, series, vectors, conic sections, parametric equations, and polar curves.

Title: **Precalculus Honors** **PCALH / 413103HW**
Unit Credit 1
Grade Levels 10-12
Prerequisite Geometry Honors and Algebra 2 Honors or Geometry and Algebra 2 with Math teacher recommendation

Precalculus is a program of mathematical studies focusing on the development of the student's ability to understand and apply the study of functions and advanced mathematics concepts to solve problems. The course will include an in-depth study of polynomial, rational, exponential, logarithmic, and trigonometric functions. Other topics studied are sequences, series, vectors, conic sections, parametric equations, polar curves, and an introduction to calculus.

Title: **Advanced Placement Calculus AB** **APCALAB / 417005AW**
Unit Credit 1
Grade Levels 11-12
Prerequisite Precalculus Honors or Math teacher recommendation

This is a course for the mathematically gifted student capable of college-level work. The course outline reflects the content currently recommended by the College Entrance Examination Board (CEEB). Students enrolled in the course are required to take the AP Calculus Exam in the spring.

Title:	**Advanced Placement Calculus BC**	**APCALBC / 417205AW**
Unit Credit	1	
Grade Levels	11-12	
Prerequisite	Precalculus Honors	

This is a course for the mathematically gifted student capable of college-level work. The course outline reflects the content currently recommended by the College Entrance Examination Board (CEEB). Students enrolled in the course are required to take the AP Calculus Exam in the spring.

Title:	**Advanced Placement Statistics**	**APSTAT / 417105AW**
Unit Credit	1	
Grade Levels	10-12	
Prerequisite	Algebra 2 Honors or Algebra 2 with Math teacher recommendation	

This is a college-level mathematics course for students who have been highly successful in Algebra 2. The purpose is to introduce students to the major concepts and tools of elementary statistics as they collect, analyze, and draw conclusions from data. Students will have extensive opportunities to explore data, plan studies, anticipate patterns, and use statistical inference. Students enrolled in the course are required to take the AP Statistics Exam in May.

Title:	**Exit Exam Math Strategies**	**EXEXMSA / 319900CH**
Unit Credit	½	
Grade Levels	9-12	
Prerequisite	None	

This elective course is for 9th grade students who did not pass the 8th grade PACT test in mathematics and students in the 11th and 12th grade who have attempted but not yet passed the Exit Exam in mathematics. The course content will include computer activities to strengthen basic skills as well as traditional classroom instruction and practice. **This course may NOT be considered as a math credit for graduation.**

Title:	**Advanced Placement Computer Science**	**APCOM / 477105AW**
Unit Credit	1	
Grade Levels	11-12	
Prerequisite	Algebra 2 Honors or Instructor approval	

This is a college-level course which follows the guidelines recommended by the College Entrance Examination Board. Students will become proficient in the Java computer programming language and will learn the basics of software design. Students are required to take the A level Advanced Placement Computer Science Examination in May. Previous exposure to computer basics and computer programming is highly recommended for success.

Title:	**Advanced Placement Computer Science (AB)**	**APCOMAB / 477205AW**
Unit Credit	1	
Grade Levels	11-12	
Prerequisite	Algebra 2 Honors or Instructor approval	

This college-level course is the computer science course outlined by the College Entrance Examination Board (CEEB). Students who take this course will continue their discussion of Java which will include structs, classes and inheritance. Students who take this course will work with a mentor to develop a special computer program or project as part of their final assessment. Students will be required to take the AP Computer Science exam in May.