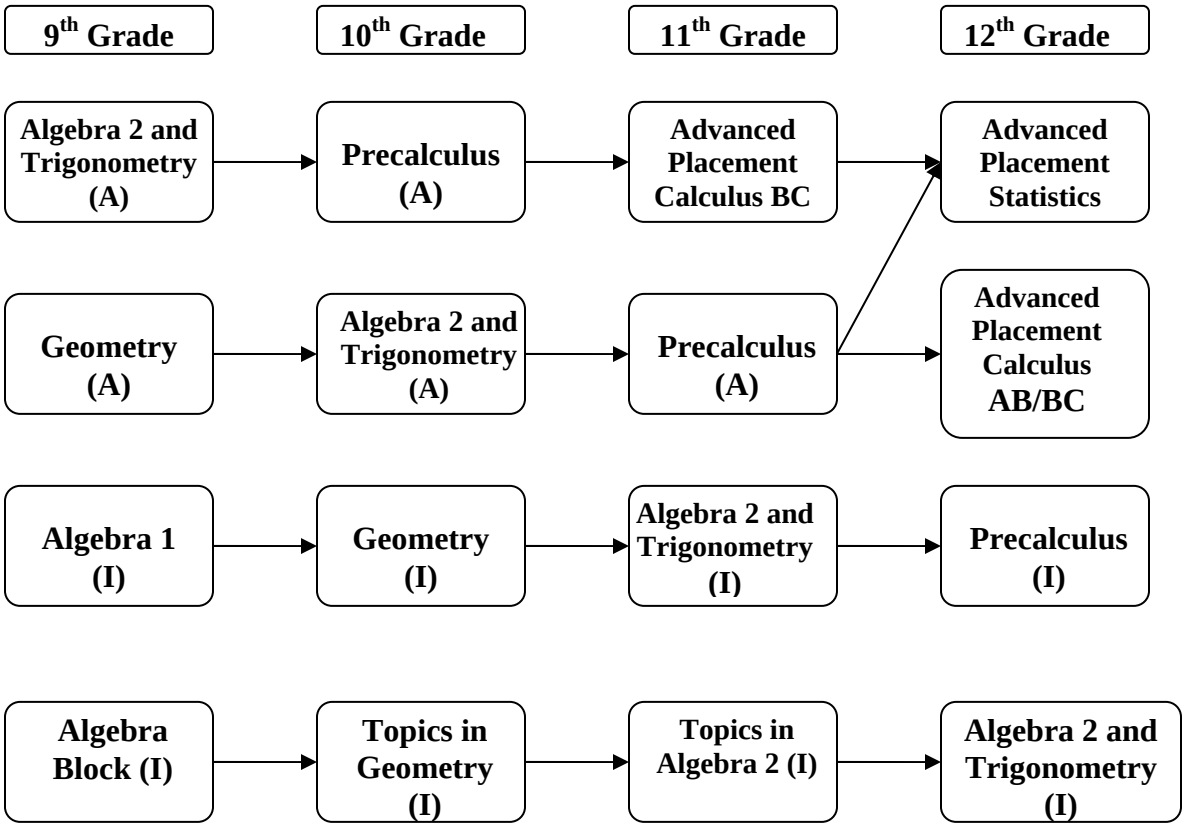
HIGH SCHOOL MATH ARTICULATION

This articulation schedule is a model.
Please see your counselor for different math options.



ADVANCED PLACEMENT CALCULUS AB (A)
Length: *Two Semesters*
Prerequisite: *Precalculus (I)*
Recommended: *Students taking I level Precalculus enroll in Calculus AB. Students enrolled in A level Precalculus, who receive an A or B, should enroll in Calculus BC. Students who receive a C in A level Precalculus should consult their instructor for guidance in placement.*
Qualifies for: *Applied Technology Credit*
Advanced Placement Calculus AB is a college-level calculus course designed for the student with a high ability in mathematics. The course follows the syllabus of the Advanced Placement Calculus AB and enables a student to test out of one semester of college calculus. The topics in this course include functions, graphs, and limits; derivatives and their applications; and the integral and its applications, and transcendental functions. The graphing calculator will be required and used extensively.

ADVANCED PLACEMENT CALCULUS BC (A)
Length: *Two Semesters*
Prerequisite: *Precalculus (A)*
Recommended: *Students taking A level Precalculus enroll in Calculus BC. Students enrolled in A level Precalculus who receive an A or B should enroll in Calculus BC. Students who receive a C in A level should consult their instructor for guidance in placement.*
Qualifies for: *Applied Technology Credit*

Advanced Placement Calculus BC is a college-level calculus course designed for the student with high mathematical ability. The course follows the syllabus of the Advanced Placement Calculus BC. The topics in this course include the rate of change of a function, limits, derivatives of algebraic functions, applications of the derivative, integration, applications of the definite integral, transcendental functions, infinite series, and differential equations. The graphing calculator will be required and used extensively.

Advanced Placement Calculus BC enables a student the opportunity to test out of two semesters of college Calculus.

ADVANCED PLACEMENT COMPUTER SCIENCE A (A)
Length: *Two Semesters*
Qualifies for: *Math or Applied Technology Credit*
Prerequisite: *Computer Programming or Teacher Recommendation*
Advanced Placement Computer Science A is a continuation of Computer Programming. It follows the syllabus of the Advanced Placement Computer Science A curriculum. The course is built around the development of computer programs or parts of programs that correctly solve a given problem. Addition lab time may be needed to complete the course requirements.

ADVANCED PLACEMENT STATISTICS (A)
Length: *Two Semesters*
Prerequisite: *Precalculus (I or A) or Algebra 2 and Trigonometry with Teacher Recommendation*
Qualifies for: *Applied Technology Credit*
Advanced Placement Statistics is an introductory, non-calculus-based course in statistics. It will introduce students to the concepts and tools for collecting, analyzing, and drawing conclusions from data. Four broad conceptual themes will be covered: 1) exploratory analysis of data, 2) planning a study, 3) probability, and 4) statistical inference. The graphing calculator (use of a TI-83 is an expectation for the Advanced Placement Test) will be used throughout the course. Students who complete this course will be prepared for and should take the Advanced Placement Statistics exam.

ALGEBRA 1 (I)
Length: *Two Semesters*
Prerequisites: *Successful Completion of Middle School Mathematics*
The topics covered in the Algebra 1 course include operations, solving equations, proportions, percent problems, polynomials, graphing lines, writing linear equations, system of equations, inequalities, factoring, rational expressions, functions, quadratics, probabilities, and statistics.

ALGEBRA 1 BLOCK (I)
Length: *Two Semesters*
Prerequisite: *Teacher Recommendation*
The topics covered in the Algebra 1 Block course include operations, solving equations, proportions, percent problems, polynomials, graphing lines, writing linear equations, system of equations, inequalities, factoring, rational expressions, functions, quadratics, probabilities, and statistics. Algebra Block is a two-period instructional course designed to provide students with additional practice in algebra concepts, principles, and problems.

ALGEBRA 2 & TRIGONOMETRY (I, A)
Length: *Two Semesters*
Prerequisite: *Algebra 1*
Recommended: *Geometry*
The topics covered in Algebra 2 and Trigonometry include the language of Algebra, variations and graphs, linear relations, matrices, logarithms, linear combination methods, substitution method, quadratic equations, functions, powers, exponents, polynomials, and trigonometry. The graphing calculator will be used extensively.

APPLIED MATH (R)
Length: *Multiple Semesters*
Prerequisite: *Teacher Recommendation*
Applied Math is designed for the student with limited mathematical skills. Applied Math provides the student with living skills such as, but not restricted to, banking, calculators, interest, budgets, personal income, geometry, investments, and taxes.

COMPUTER PROGRAMMING (I)
Length: *One Semester*
Qualifies for: *Math or Applied Technology Credit*
Prerequisite: *Algebra 1*
Computer Programming consists of an introduction to computer programming in which students learn how to write computer programs in a specified language. The student will learn the fundamentals of computer programming, and the structured programming skills that can be used with any language. Additional lab time may be needed to complete the course requirements.

GEOMETRY (I, A)
Length: *Two Semesters*
Prerequisite: *Middle School Algebra, Algebra* 1 *or Algebra 1Block*
The topics covered in Geometry include distance, betweenness, lines and planes, angles and triangles, triangular inequalities, perpendicular lines and planes, area of polygonal regions, similarity, circles and spheres, measures relating to circles, and solids and their volumes.

PRECALCULUS (I, A)
Length: *Two Semesters*
Prerequisite: *Algebra 2 & Trigonometry*
The first semester of Precalculus covers advanced topics of Algebra and Trigonometry that will be needed for further math courses. The topics covered in this course include the study of Algebraic functions and Trigonometry from the standpoint of the unit circle, which reinforces much of the material covered in Algebra 2 and Trigonometry. The second semester of Precalculus covers topics that include finite and infinite sequences and series, limits, conic sections, polar equations, exponential and logarithmic functions, and probability and descriptive statistics. The graphing calculator will be used extensively.

STATISTICS (I)
Length: *One Semester*
Prerequisite: *Algebra 2 and Trigonometry or higher or Teacher Recommendation*
Statistics is a one-semester, introductory, non-Calculus based course in statistics. The purpose is to introduce students to the major concepts and tools for analyzing, collecting, and drawing conclusions from data. The topics covered include: 1) data analysis: methods and ideas for organizing and describing data, observing patterns and departures from patterns; 2) collecting data: methods for producing data to answer specific questions, selecting samples, and designing experiments; 3) statistical inference: drawing conclusions from data; and 4) probability: emphasis will be given to collecting and analyzing real data. Calculators and computer software will be used extensively.

TOPICS IN ALGEBRA 2 (I)
Length: *Two Semesters*
Prerequisite: *Topics in Geometry/Geometry and Teacher Recommendation*
Topics in Algebra 2 reviews and extends the main concepts of elementary algebra by examining the structure of number systems: natural, integer, rational, real, and complex. Powers, roots, radicals, functions, and equations are also studied.

TOPICS IN GEOMETRY (I)
Length: *Two Semesters*
Prerequisite: *Algebra 1*
Topics in Geometry is the Geometry course designed for the student who has completed the Algebra 1 Block Course. Many of the concepts covered in Geometry (I) are also covered in Topics in Geometry (I).