

This course is the first semester in the two-semester geometry sequence. Students study points, lines, planes, proofs, parallel lines, congruent triangles quadrilateral and similarity. (CSF-I)

GEOMETRY IB

Grades 9-10

5 credits

Prerequisite: A “C” or above in Geometry IA and/or teacher recommendation.

This course is the second semester in the geometry sequence. Students study right triangles, circles, polygons, area, volume, and coordinate geometry. (CSF-I)

ALGEBRA II A/B

Grades 11-12

10 credits

Prerequisite: A grade of “C” or above in both Algebra IA/IB and Geometry IA/IB and/or the recommendation of the previous instructor.

This two semester elective reviews the topics of Algebra I and weaves in more advanced topics: completing the square, deriving the quadratic formula, simplification of radicals, and complex numbers. (CSF-I)

ALGEBRA II/TRIGONOMETRY A/B

Grades 10-12

10 credits

Prerequisite: A grade of “B” or above in both Algebra IA/IB and Geometry IA/IB and the recommendation of the previous instructor.

This two semester elective covers sequences, radicals, quadratic equations, polynomial functions, exponential and logarithmic functions, trigonometry, matrices, and determinants. This course is designed for highly motivated students. (CSF-I)

ALGEBRA II/TRIGONOMETRY A/B HONORS

Grades 9-10

10 credits

Prerequisite: A grade of “A” in geometry IA/B and the recommendation of the instructor.

This two semester elective covers in depth sequences, radicals, quadratic equations, polynomial functions, exponential and logarithmic functions, trigonometry, matrices, and determinants. This course is designed for students of exceptional mathematical ability. (CSF-I)

TRIGONOMETRY

Grades 10-12

5 credits

Prerequisite: A “C” or better in Algebra IIB and teacher recommendation.

This course is a one-semester introduction to trigonometry. The course will cover trigonometric functions in right triangles, graphs of trigonometric functions and relationships, trigonometric identities and law of cosine and sine, vectors, complex numbers, exponential and logarithmic functions, and analytic geometry. (CSF-I)

PRE-CALCULUS A/B

Grades 11-12

10 credits

Prerequisite: A grade of “C” or above in Algebra II (with completion of a trig. class) or Algebra II/Trigonometry and the recommendation of the previous instructor.

This two semester pre-calculus elective covers mathematical induction, sequences, vectors, complex numbers, polynomial functions, exponential and logarithmic functions, trigonometry, and second degree equations. (CSF-I)

PRE CALCULUS A/B HONORS

Grades 10- 11

10 credits

Prerequisite: A grade of “B” or above in Honors Algebra II/Trigonometry and/or the recommendation of the previous instructor.

This two semester pre-calculus elective covers in-depth mathematical induction, sequences, vectors, complex numbers, polynomial functions, exponential and logarithmic functions, trigonometry, and second degree equations. During the second semester limits, continuity, derivatives, and integrals will be discussed. This course is designed for students of exceptional mathematical ability. (CSF-I)

CALCULUS AB ADVANCED PLACEMENT

Grade 11-12

10 credits

Prerequisite: A grade of “C” or above in Pre-Calculus A/B or the recommendation of the previous instructor.

This two semester elective covers polynomial functions, limits, differentiation, integration, exponential and logarithmic functions, inverse trigonometric functions, and analytic geometry. This course prepares students to take the AB Advanced Placement Calculus Examination for college credit. (CSF-I)

CALCULUS BC ADVANCED PLACEMENT

Grades 11-12

10 credits

Prerequisite: A grade of “C” or above in Honors Pre-Calculus and the recommendation of the instructor.

This two semester elective covers the Calculus AB Advanced Placement course (see above). It also includes sequences, series, differential equations, polar and parametric functions. This course prepares students to take the BC Advanced Placement exam for college credit. (CSF-I)

STATISTICS ADVANCED PLACEMENT

Grades 11-12

10 credits

Prerequisite: Enrollment in or completion of Pre-Calculus and instructor recommendation.

This is a one year course in introductory probability and statistics. Students will learn procedures for collecting, organizing and analyzing data. Use of TI-83 graphing calculators and computers will be required. This course prepares the student to take the Advanced Placement Statistics examination for college credit. (CSF-I)

COMPUTER SCIENCE A ADVANCED PLACEMENT Grades 11-12 10 credits

Prerequisite: A grade of “B” or better in Algebra II or Pre-Calculus, and permission of instructor.

This two semester elective covers programming methodology, elementary algorithms and static structures. Students will develop and code programs using Java. This course prepares students for the Computer Science “A” level exam for one semester of college credit. (CSF-II)

CONSUMER MATH Grades 11-12 5 credits

This course prepares the student for life beyond high school. Students will learn how to research jobs, colleges, housing, and other expenses. They will learn how to budget, pay bills, balance a checkbook, play the stock market, and will learn the benefits of saving money instead of accruing credit card debt. Students will also learn how to work collaboratively with their peers while researching various topics in which math relates to science, social studies, language arts, art, and sports and recreation. (CSF III)

STRATEGIC MATH Grades 11-12 (who have not passed the Math CAHSEE) 5 credits

This Math course is a semester course designed to supplement a student’s regular mathematics course by providing direct and focused education on the California Content Standards for mathematics that are included in the CAHSEE Mathematics Blueprint. The course is intended for 11th and 12th grade students who have not passed the math portion of the CAHSEE. In addition to focusing on the specific math standards that need to be mastered to pass CAHSEE, students will develop the stamina, confidence and “test-wiseness” needed to help them pass this high stakes test. The course will earn math credit, and may be taken along side a student’s regular Algebra class or alone if the student has already fulfilled the Algebra graduation requirement. (CSF III)