

All Math courses are focus on both content and how students interact with this content (Standards for Mathematical Practice).

AP Calculus AB

Students prepare for the AP Exam in Calculus AB. This exam is administered in May of each year by the College Board, which says that “This is roughly equivalent to a first semester college calculus course. Students study topics in differential and integral calculus including concepts and skills of limits, derivative, definite integrals and the Fundamental Theorem of Calculus. The course teaches students to approach calculus concepts and problems when they are represented graphically, numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions.

Pre-requisites: Application, completion of Pre-Calculus, either in day school or through College Now, passing grade on the Algebra 2 Regents Exam, review of record, and teacher recommendation.

Discrete Math

Students learn a variety of topics in and above the level of the Common Core sequence: functions and graphs, the power of logarithms, symmetry and regular figures, curves (including conic sections, the sine graph, spirals and cycloids), mathematics of counting, the mathematics of chance, and introductions to statistics and to topology. Emphasis is on recreational aspects of mathematics without losing sight of what mathematics is all about.

Pre-requisites: Must be at least a junior, completion of Algebra 1 and the Regents Exam, review of record, and teacher recommendation.

Statistics

For those who completed Common Core Algebra 2. Statistical methods are presented with a focus on understanding both the suitability of the method and meaning of the result. Statistical methods are presented with a focus on understanding both the suitability of the method and meaning of the result. Statistical methods and measurements are developed in the context of the applications. The course covers such topics as: Averages and Variation; Correlation and Regression; Probability Theory; The Binomial Probability Distribution and Related topics; Normal Curve and Sampling distributions; Estimation; Hypothesis Testing and Inferences about Differences

Pre-requisites: Application, completion of Algebra 2, and review of record.