

Honors: Precalculus

Precalculus is a comprehensive course that weaves together previous study of algebra, geometry, and functions into a preparatory course for calculus. The course focuses on the mastery of critical skills and exposure to new skills necessary for success in subsequent math courses. The first semester includes linear, quadratic, exponential, logarithmic, radical, polynomial, and rational functions; systems of equations; and conic sections. The second semester covers trigonometric ratios and functions; inverse trigonometric functions; applications of trigonometry, including vectors and laws of cosine and sine; polar functions and notation; and arithmetic of complex numbers. Within each Precalculus lesson, students are supplied with a post-study "Checkup" activity, providing them the opportunity to hone their computational skills in a low-stakes problem set before moving on to a formal assessment. Additionally, connections are made throughout the Precalculus course to calculus, art, history, and a variety of other fields related to mathematics. The content is based on the National Council of Teachers of Mathematics (NCTM) standards and is aligned to state standards.