Kelloggsville Virtual School

Precalculus

Course Description

2 Semesters; 1 credit

Prerequisite:Two years of Algebra & Geometry

Precalculus is a course that combines reviews 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 that provides them the opportunity to hone their computational skills by working through a low-stakes problem set before moving on to formal assessment. Unit-level Precalculus assessments include a computer-scored test and a scaffolded, teacher-scored test.The course is built to state standards and the National Council of Teachers of Mathematics (NCTM) standards. **This course requires: TI-84, TI-83 or TI-83 Plus calculator or equivalent.**

Unit 1: Functions
Unit 2: Quadratic Functions
Unit 3: Polynomial and Rational Functions
Unit 4: Exponential and Logarithmic Functions
Unit 5: Conic Sections
Unit 6: Semester 1 Review & Exam
Unit 7: Introduction to Trigonometry
Unit 8: Trigonometric Functions
Unit 9: Working with Trigonometric Functions
Unit 10: Trigonometric Identities
Unit 11: Applications of Trigonometry
Unit 12: Complex Numbers
Unit 13: Semester 2 Review & Exam