

PRE-CALCULUS

Grade: 11, 12

Credit: 0.5 (NCAA approved)

Prerequisite: Algebra 1, Algebra 2, Geometry, 0.5 credit Trigonometry

Pre-calculus, as its name indicates, is designed to prepare you for Calculus. Topics include understanding functions from symbolic, tabular, and graphical perspectives, transformations and function composition, polynomial functions, rational polynomial functions, trigonometry, and conic sections. In addition to content mastery, the course goals are to further develop students' problem solving and critical thinking skills. The difficulty level of the material increases significantly throughout the course. Students should be prepared to be challenged and work hard.

Pre-Calculus Lessons

Teacher Message

Lesson 1: Algebra 2 Review

Lesson 2: Graphing Polynomials

Lesson 3: Graphing Rational Functions

Lesson 4: Solving Polynomial Equations

Lesson 5: Review - Polynomials and Rationals

Lesson 6: Graphing Exponential and Logarithmic Functions

Lesson 7: Exponential and Logarithmic Equations

Lesson 8: Logarithmic and Exponential Regressions

Lesson 9: Review - Exponentials and Logarithms

Lesson 10: Conic Sections Part 1

Lesson 11: Conic Sections Part 2



Lesson 12: Graphing with Transformations

Lesson 13: Vectors

Lesson 14: Parametric Equations

Lesson 15: Review - Conic Sections, Transformations, Vectors, Parametric Equations

Lesson 16: Sequences and Series

Lesson 17: The Binomial Theorem and Pascal's Triangle

Lesson 18: Mathematical Induction

Lesson 19: Limits

Lesson 20: Review - Sequences and Series, Binomial Theorem, Pascal's Triangle, Mathematical Induction, and Limits

