

Course Description

Pre-Calculus is designed to prepare students for college level mathematics. Topics covered include a review of basic algebraic concepts; analysis of functions and techniques for graphing polynomial, rational, radical, exponential, logarithmic, and trigonometric functions; trigonometric identities; parametric and polar coordinates; matrix theory; and vectors. Students, as mathematical analysts, will develop logical thinking and imagination through the experience of mathematical patterns and will become familiar with the fundamentals of precalculus through the use of the textbook, online resources, and a graphing calculator. Throughout the course, students will explore mathematics as a fundamental aspect of God's creation, mathematical tools as necessary and useful in daily life, and mathematics used for the interpretation of scientific knowledge.

This is a yearlong course consisting of 9 units. Upon successful completion students will receive 1 credit towards high school graduation.

Course Overview

Semester 1 Units:	Semester 2 Units:
1. Functions and Graphs	5. Analytic Trigonometric
2. Polynomial and Rational Functions	6. Additional Topics in Trigonometry
3. Exponential and Logarithmic Functions	7. Linear Systems and Matrices
4. Trigonometric Functions	8. Sequences and Series
	9. Topics in Analytic Geometry

Methods of Evaluation

Students will demonstrate mastery through the following formative and summative assessments:

- 40% Assignments
- 10% Participation (Discussion Posts, Live Classes)
- 10% Quizzes
- 25% Final Assessment
- 15% Unit Tests

Additional Course Information

Detailed information regarding OC Online policies on proctored final exams, grading policy, late/missing assignment policy, weekly live classes, course expectations, and additional school policies can be found on the website.