

Scope and Sequence

Semester 1

Precalculus Prerequisites

Numbers, Notation, & Exponents
Agility, Simplifying, & Evaluating
Coordinate Geometry, Equations, & Lines
Complex Numbers, Modeling, & Calculators

Fun and Functions

Algebraic Domains of Functions
Limits & Continuity
Other Properties of Functions
Parent Functions and Transformations
Building Functions from other Functions

Polynomial and Rational Functions

Polynomial Functions and Inequalities
Binomial Theorem and Pascal's Triangle
Real Zeros of Polynomial Functions
The Intermediate Value Theorem
Complex Zeros of Polynomial Functions
Rational Functions & Inequalities
Radical Functions and Power Functions

Exponential and Log Functions

Exponential and Logistic Functions
Exponential and Logistic Modeling
Logarithmic Functions
Properties of Logs
Exponential and Log Equations

Semester 2

Trigonometric Functions

Angles and Angle Measure
Applications of Angles
Circular Trig Functions
Using the Unit Circle
Sinusoids
Applications of Sinusoids
The Other Trig Functions
Inverse Trig Functions
Problem Solving with Trigonometry

Analytic Trigonometry

Fundamental Identities
Trig Proofs!!!
Composite Identities
Other Identities
The Law of Sines
The Law of Cosines & Area
Vectors

Polar & Parametric

Polar Coordinates
Graphs of Polar Equations
Plane Curves and Parametric Equations

Conic Sections

Circles & Ellipses & Applications
Hyperbolas & Parabolas & Applications

Introduction to Calculus

The Derivative
The Integral
Sequences & Series (finite & infinite)