18-19 Curriculum Map: Pre-Cal

Unit(s)	Standards	Timeframe	Assessments	Unit Objectives/Big Ideas
Review of the Real Number System Functions and Their Graphs	F.6.PC.1 F.6.PC.2 F.6.PC.3 F.6.PC.4	3 weeks	Daily Assignments Verbal Feedback Activities Class Discussions Quizzes Tests	● Lines in the plane ● Functions ● Graphs of functions ● Shifting, reflecting, and stretching graphs ● Combinations of functions ● Inverse functions ● Linear models and scatter plots
Polynomial and Rational Functions	NQ.1.PC.1 NQ.1.PC.2 NQ.1.PC.3 NQ.1.PC.4 F.6.PC.1 F.6.PC.2 F.6.PC.3 F.6.PC.4 F.7.PC.1 F.7.PC.2 F.7.PC.3	5 weeks	Daily Assignments Verbal Feedback Activities Class Discussions Quizzes Tests	● Quadratic functions ● Polynomial functions of higher degree ● Real zeros of polynomial functions ● Complex numbers ● The Fundamental Theorem of Algebra ● Rational functions and asymptotes ● Graphs of rational functions ● Quadratic models
Exponential and Logarithmic Functions	F.6.PC.1 F.6.PC.2 F.6.PC.3 F.6.PC.4 F.6.PC.5 F.6.PC.6 F.7.PC.4 F.7.PC.5 F.7.PC.7	4 weeks	Daily Assignments Verbal Feedback Activities Class Discussions Quizzes Tests **ACT Interim Assessment 1: Week 9**	● Exponential functions and their graphs ● Logarithmic functions and their graphs ● Properties of logarithms ● Solving exponential and logarithmic models ● Nonlinear models
Trigonometric Functions Analytic Trigonometry	T.3.PC.1 T.3.PC.2 T.3.PC.3 T.3.PC.6 T.4.PC.1 T.4.PC.2	9 weeks	Daily Assignments Verbal Feedback Activities Class Discussions Quizzes Tests	● Radian and degree measure ● The unit circle ● Right triangle trig ● Trig functions of any angle ● Graphs of sine and cosine ● Graphs of other trig functions

	T.4.PC.3 T.4.PC.4 T.4.PC.5 F.7.PC.6 F.7.PC.7		**ACT Interim Assessment 2: Week 18**	● Inverse trig functions ● Using fundamental identities ● Verifying trig identities ● Solving trig equations ● Sum and difference formulas ● Multiple-angle and product-to-sum formulas
Additional Topics in Trigonometry	NQ.2.PC.1 NQ.2.PC.2 NQ.2.PC.3 NQ.2.PC.4 NQ.2.PC.5 T.3.PC.4 T.3.PC.5	4 weeks	Daily Assignments Verbal Feedback Activities Class Discussions Quizzes	● Law of sines ● Law of cosines ● Vectors in the plane ● Vectors and dot products ● Trigonometric form of a complex number
Linear Systems and Matrices		4 weeks	Daily Assignments Verbal Feedback Activities Class Discussions Quizzes Tests **ACT Interim Assessment 3: Week 27**	● Solving systems of equations ● Systems of linear equations in two variables ● Multivariable linear systems ● Matrices and systems of equations ● Operations with matrices ● Inverse of a square matrix ● Determinant of a square matrix ● Applications of matrices and determinants
Sequences, Series, and Probability		4 weeks	Daily Assignments Verbal Feedback Activities Class Discussions Quizzes Tests **ACT Aspire: Week 32**	● Sequences and series ● Arithmetic sequences and partial sums ● Geometric sequences and series ● The Binomial Theorem ● Counting principles ● Probability
Topics in Analytic Geometry	CS.5.PC.1 CS.5.PC.2 CS.5.PC.3 CS.5.PC.4 CS.5.PC.5	4 weeks	Daily Assignments Verbal Feedback Activities Class Discussions Quizzes Tests	● Conics: circles and parabolas ● Ellipses ● Hyperbolas and rotation of conics ● Parametric equations ● Polar coordinates ● Graphs of polar equations ● Polar equations of conics

Limits and an Introduction to Calculus		4 weeks	Daily Assignments Verbal Feedback Activities Class Discussions Quizzes Tests	● Introduction to limits ● Techniques for evaluating limits ● The tangent line problem ● Limits at infinity and limits of sequences ● The area problem