AP Pre-Calculus Curriculum Map

TOPIC & TEXTBOOK CHAPTERS	Duration	Month(s)
Unit 1: Polynomial and Rational Functions Polynomial Functions and Models, Rational Functions & Graphs, Polynomial and Rational Inequalities, Real Zeros, Complex Zeros, Fundamental Theorem of Algebra	9 wks	Sep/Oct
Unit 2: Exponential and Logarithmic Functions Geometric & Arithmetic Sequences, Composite Functions, One-to-One Functions, Inverse Functions, Exponential Functions, Logarithmic Functions, Properties of Logarithms, Logarithmic & Exponential Equations, Financial Models, Exponential Growth/Decay Models, Logistic Growth/Decay Models	9 wks	Oct/Nov/ Dec
Unit 3: Trigonometric Functions Angles, Trigonometric Functions, Unit Circle, Trigonometric Function Properties, Trigonometric Function (Sine, Cosine, Tangent, Cosecant, Secant and Cotangent) Graphs, Phase Shift, Sinusoidal Curve Fitting	6 wks	Jan/Feb
Unit 4: Analytic Trigonometry Inverse Trigonometric Functions, Trigonometric Identities, Sum/Difference Formulas, Double-Angle & Half-Angle Formulas, Product-to Sum & Sum-to-Product Formulas, Trigonometric Equations	6 wks	Feb/Mar
Unit 5: Polar Coordinates & Vectors Polar Coordinates, Polar Equations & Graphs, The Complex Plane, De Moivre's Theorem, Vectors, The Dot Product, Vectors in Space, The Cross Product	3 wks	Apr
Unit 6: Analytic Geometry Conics, Parabolas, Ellipses, Hyperbolas, Rotation of Axes, General Form of a Conic	3 wks	May