Year at a Glance

Precalculus Honors

Course Number 1202340

Course Description:

In Precalculus Honors, instructional time will emphasize six areas: (1) extending right triangle trigonometry to unit circle trigonometry and trigonometric functions; (2) extending understanding of functions to trigonometric; (3) developing understanding of conic sections; (4) representing and performing operations with complex numbers and vectors in the coordinate plane; (5) extending understanding of relations in the plane using parametric representations, including polar coordinates and (6) analyzing arithmetic and geometric sequences and series.

Textbook Publisher:

Pearson: Precalculus Graphical, Numerical, Algebraic

(Students have online access through https://mlm.pearson.com/northamerica/mymathlab/)

Standards:

Available on CPalms

Available on Florida Department of Education: Precalculus Honors

Assessment Dates:

Local End Of Course Exam- May

Quarter 1	**Unit 1: Prerequisite**	P.3 Linear Equations and Inequalities P.4 Lines in the Plane P.5 Solving Equations Graphically, Numerically, and Algebraically P.6 Complex Numbers
	Unit 2: Functions and Graphs	1.2 Functions and Their Properties 1.3 Twelve Basic Functions 1.4 Building Functions from Functions 11.1 Introduction to Calculus 1.5 Parametric Relations and Inverses
	Unit 3: Polynomial, Power, and Rational Functions	2.1 Linear and Quadratic Functions and Modeling A.1 Rational Exponents 2.2 Power Functions with Modeling 2.3 Polynomial Functions with Modeling 2.4 Real Zeros of Polynomial Functions 2.5 Complex zeros and the Fundamental Theorem of algebra 2.6 Graphs of Rational Functions A.3 Rational Expressions 2.7 Solving Equations in one variable
Quarter 2	**Unit 4: Exponential, Logistic, and Logarithmic Functions**	P.1 Exponent rules 3.1 Exponential and Logistic Functions 3.2 Exponential and Logistic Modeling 3.3 Logarithmic Functions and their Graphs 3.4 Properties of Logarithmic Functions 3.5 Equation Solving and Modeling 7.1 Solving Systems of Two Equations
	Unit 5a: Trigonometric Functions	Chapter 4a 4.1 Angles and Their Measure Prerequisite(s) review of Special Right Triangles/Pythagorean Theorem 4.2 Trigonometric Functions of Acute Angles 4.3 Trigonometry Extended: The Circular Functions
Quarter 3	**Unit 5b: Trigonometric Functions**	4.4 Graphs of Sine and Cosine: Sinusoids 4.5 Graph of Tangent, Cotangent, Secant, and Cosecant 4.7 Inverse Trigonometric Functions 4.8 Solving Problems with Trigonometry
	Unit 6: Analytic Trigonometry	5.5 The Law of Sines 5.6 The Law of Cosines *A.2 Factoring *A.3 Reducing Rational and compound Expressions 5.1 Fundamental Identities 5.2 Proving Trigonometric Identities 5.3 Sum and Difference Identities 5.4 Multiple- Angle Identities

		P.2 Distance Formula and Introduction to Magnitude
	Unit 7: Applications of Trigonometry	6.1 Vectors in a Plane
		6.2 Dot Product of Vectors
		1.5 Parametric Relations
		6.3 Parametric Equations and Motion
		6.4 Polar Coordinates
		6.5 Graphs of Polar Equations
		6.6 De Moivre's Theorem and nth Roots
		*Some of Unit 7 will be in Q4
Quarter 4	**Unit 8: Analytic Geometry in Two and Three Dimensions**	P.2 Midpoint and Circles
		8.1 Conic Sections and a New Look at Parabolas
		8.2 Circles and Ellipses
		8.3 Hyperbolas
	Unit 9: Discrete Mathematics	9.3 Sequences
		9.4 Series

Please Note:

- Teachers may use additional resources as noted on an individual teacher's syllabus. For specific questions regarding individual classrooms please contact the teacher for clarification.
- This guide represents a recommended sequence that can be used voluntarily by teachers. Dates may vary depending on individual classrooms. For specific questions regarding pacing please contact the individual teacher for clarification.
- **Graduation Requirements:** Students earning a standard high school diploma must earn at least one math credit in Algebra 1 or an equivalent course. The student must also pass the FSA Algebra 1 End of Course Exam (EOC) or earn a concordant score. More information on graduation requirements and concordant scores can be found here: Graduation Requirements for Florida's Statewide Assessments.