



Carroll ISD Pre-Calculus 2025-2026 Year-At-A-Glance

	1 st Grading Period	2 nd Grading Period	3 rd Grading Period	4 th Grading Period
Process Standards	PC. 1 A, B, C, D, E, F, G Math Process Standards, how students understand and learn mathematics, are used throughout the course			
TEKS	Unit 1: Right/Oblique Triangle Trig PC4.E, F, G, H Unit 2a: Unit Circle Trig Values of Special Angles PC4.A, B, C, D, E, F; PC2.P Unit 2b: Unit Circle Trig Values of Non-Special Angles PC4.A, B, C, D, E, F; PC2.P	Unit 3: Trig Graphing and Inverses PC2.E, F, G, H, I O P Unit 4: Trig Equations and Identities PC2.P; PC4.E; PC5.M, N Unit 5: Vectors and Parametric Equations PC3.A, B, C; PC4.I, J, K Unit 6a: Polar Equations and Graphs PC3.D, E	Unit 6b: Conic Sections and Polar PC3.F, G, H, I Unit 7: Characteristics of Functions PC2.B, C, D, E, F, G, I, J, K, L, M Unit 8a: Polynomials PC2.F, G, H, I, J; PC5.J, K	Unit 8b: Polynomials PC2.F, G, H, I; PC5.J, K Unit 9: Rational Functions PC2.F, G, I, J, K, L, M, N; PC5.L Unit 10: Exponential and Logarithmic Functions PC2.F, G, I, J, N; PC5. G, H, I Unit 11: Sequences and Series PC5.A, B, C, D, E, F
Topic Focus	Unit 1: - Right Triangle Trigonometry - Solve application problems using right triangle trig - Solve application problems using Law of Sines and Law of Cosines - Use Heron's Formula to solve the area of triangles	Unit 3: - Graph sine and cosine functions - Transform sine and cosine functions - Use sinusoidal curves to model application problems - Graph inverse trig functions	Unit 6b: - Solve and graph equations of circles, ellipses, and hyperbolas - Identify conic sections from equations Unit 7: - Graph the functions listed in the library of functions	Unit 8b: - Identify polynomial functions and their degree - Graph a polynomial function using transformations - Find a polynomial function from its zeros - Identify zeros and their multiplicity - Use the remainder, factor, rational zeros, intermediate

	Unit 2a: ● Evaluate the six basic trig functions ● Develop the idea of the unit circle and note the patterns and relationships ● Develop understanding of the unit circle in both radians and degrees ● Evaluate trig identities Unit 2b: ● Evaluate the six basic trig functions ● Develop the idea of the unit circle and note the patterns and relationships ● Develop understanding of the unit circle in both radians and degrees ● Evaluate trig identities	Unit 4: ● Verify fundamental trig identities ● Verify identities using other formulas ● Solve trig equations using identities and formulas ● Sum and difference identities Unit 5: ● Use component form of vectors to solve for magnitude and direction of vectors ● Solve application problems using vectors ● Convert between parametric and rectangular forms of functions ● Use parametric equations to simulate two dimensional motion problems Unit 6a: ● Plot polar points ● Plot polar functions ● Convert between rectangular and polar coordinates	● Form the sum, difference, product, and quotient of two functions ● Identify the domain of a function defined by an equation ● Graph Piecewise functions ● Graph functions using reflections over the x- and y-axis ● Use composition of functions to verify that two functions are inverses Unit 8a: ● Investigate area under the curve ● Write quadratic functions in vertex, standard, and factored form ● Use quadratics to model real-world problems ● Graph and solve polynomial inequalities ● Evaluate and analyze graphs of polynomial functions, including end behavior ● Graph polynomial functions	value, and conjugate pairs theorems ● Find complex zeros of a polynomial function Unit 9: ● Use operations with rational functions ● Solve and graph rational functions ● Evaluate and analyze graphs of rational functions ● Graph and solve nonlinear inequalities Unit 10: ● Evaluate and graph exponential and logarithmic functions ● Apply properties of logarithms to solve logarithmic equations ● Apply properties of exponents to solve exponential equations Unit 11: ● Represent patterns using arithmetic and geometric sequences ● Use sequences and series to solve real-world problems ● Use binomial theorem to expand binomial expressions
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Additional Resources	McGraw Hill Pre-Calculus Khan Academy Delta Math			

Power Standards: PC2.A, PC2.C, PC2.D, PC2.I, PC2.J, PC2.M, PC5.A, PC5.M