

Pre-Calculus & Trigonometry
Curriculum Map

Units	Highlights
Unit 1: Sequences	<ul style="list-style-type: none"> • General sequences • Summation notation (Sigma) • Arithmetic: rule, particular term, sum • Geometric: rule, particular term, sum • A function with a specific domain: notation differences
Unit 2: Trigonometry (Right Triangles)	<ul style="list-style-type: none"> • Right triangles: six trig ratios: finding missing sides. • Pythagorean Theorem • Applications: angle of elevation, angle of depression
Unit 3: Trigonometry (Oblique Triangles)	<ul style="list-style-type: none"> • Law of Sines (ASA, AAS) • The Ambiguous Case (SSA) • Law of Cosines (SSS, SAS) • Applications: Bearing Problems
Unit 4: Trigonometry (Angles and Measure)	<ul style="list-style-type: none"> • Angles: degrees and radians (conversions) • Co-terminal angles • Standard position: pay attention to terminal side quadrant. • Evaluating trig functions with calculator (degrees, radians)
Unit 5: Trigonometry (Evaluate without Calculator)	<ul style="list-style-type: none"> • Reference angles • Special triangles • Quadrantals: Unit Circle • Degrees and radians • Terminal side and quadrants • Will separate degrees and radians into two separate summatives
Unit 6: Trigonometry (Analytical)	<ul style="list-style-type: none"> • Solve Trigonometric Equations (Graphing Calculator) • Simplifying trigonometric expressions • Verifying identities • Solving Trigonometric Equations (Without Graphing) – limited to single trig functions with no factoring
Unit 7: Review of factoring skills	<ul style="list-style-type: none"> • GCF/ difference of squares, quadratic trinomials • Solve equations by factoring --- polynomials and trigonometric equations
Semester 2	Highlights
Unit 8: Functions and their Graphs (Use of graphing calculator)	<ul style="list-style-type: none"> • Interval Notation • Using features on graphing calculator: find intervals increasing, decreasing, or constant, relative extrema, polynomials, domain, range, intercepts --- all from the graph
Unit 9: Functions	<ul style="list-style-type: none"> • From the equation --- domain, zeros, difference quotient, even or odd function • Knowing the 6 basic functions --- perform shifts, reflections, stretches, and shrinks --- translate the whole graph or a point on a graph – no graphing calculators on the summative assessment

Unit 10: Polynomial and Rational Functions	<ul style="list-style-type: none"> • Polynomials --- Leading Coefficient Test, Multiplicity of Zeros • Rational --- horizontal and vertical asymptotes, domains, even or odd functions and symmetry • No graphing calculator on the summative assessment
Unit 11: Synthetic Division and its Applications	<ul style="list-style-type: none"> • Synthetic division • Remainder Theorem • Factoring polynomials of degree three or higher
Unit 12: Limits	<ul style="list-style-type: none"> • Evaluating limits – numerically, graphically, and analytically • One-sided limits • Continuity versus differentiability • Continuity definition • Vertical asymptotes and limits

What distinguishes this class from the Honors Pre-Calculus & Trigonometry?

- Assessments --- will not need to memorize all the formulas.
- Problems ---- more typical problems on summative assessments, may look at special cases in formatives.
- Pacing --- slower
- Units may be broken down into several summative assessments in the regular class.
 - For example: Unit 5 will be separated into degrees for one assessment and radians for the second assessment in the regular course. The honors course will have them in the same assessment.
- The regular class will not do the last two units in the Honors class: Differentiation and Applications of Differentiation