Course Title: Pre-Calculus Honors
Content Area: Mathematics
Grade Level: 10-11

Scope and Sequence

Grade Level: 10-11

Course Introduction: Pre-Calc is the culmination of Algebra and Geometry topics, especially Analytic Geometry. Trigonometry is studied in-depth along with a variety of functions to prepare for Calculus.

Units of Study	Standards	Length of Time	Key Content	Assessment Tools	Scaffolding Strategies (Interventions, Special Education)	Resources & Materials
Rational and Radical Equations and Functions	CC.2.2.HS.D.3 CC.2.2.HS.D.4 CC.2.2.HS.D.5 CC.2.2.HS.D.6 CC.2.2.HS.D.7 CC.2.2.HS.D.8 CC.2.2.HS.D.9 CC.2.2.HS.D.10 CC.2.2.HS.C.2 CC.2.2.HS.C.4	4 weeks	Excluded Values for Rational Expressions Solving Rational Equations Solving Radical Equations Extraneous Solutions Domain and Range Graphing	- Teacher created assessments (quizzes/tests) - Blackboard	Students are allowed to retest if needed.	- OneNote - Blackboard - Textbook - Kuta Software
Intro to Trigonometry	CC.2.1.HS.F.4 CC.2.1.HS.F.5 CC.2.2.HS.D.8 CC.2.2.HS.D.9 CC.2.2.HS.C.3 CC.2.2.HS.C.7 CC.2.3.HS.A.7 CC.2.3.HS.A.14	5 weeks	Standard Position Angles Unit Circle Trig Function Ratios Right Triangle Trigonometry Law of Sines Law of Cosines Applications	- Teacher created assessments (quizzes/tests) - Blackboard	Students are allowed to retest if needed.	- OneNote - Blackboard - Textbook - Kuta Software

Graphing Trigonometric Functions	CC.2.1.HS.F.3 CC.2.2.HS.D.7 CC.2.2.HS.D.10 CC.2.2.HS.C.2 CC.2.2.HS.C.3 CC.2.2.HS.C.4 CC.2.2.HS.C.6 CC.2.2.HS.C.7 CC.2.2.HS.C.8	5 weeks	Radian Angle Measure Periodic Functions Amplitude, Period for sin and cos Horiz, Vert Translations Graphing csc, sec, tan, cot Graphing (Principal) Trig Inverses	- Teacher created assessments (quizzes/tests) - Blackboard	Students are allowed to retest if needed.	- OneNote - Blackboard - Textbook - Kuta Software
Trigonometric Identities	CC.2.2.HS.D.1 CC.2.2.HS.D.2 CC.2.2.HS.D.6 CC.2.2.HS.C.9	4 weeks	Fundamental Identities Simplifying Trig Expressions Verifying Trig Identities Sum and Difference Identities Double Angle Identities Half Angle Identities Solving Trig Equations	- Teacher created assessments (quizzes/tests) - Blackboard	Students are allowed to retest if needed.	- OneNote - Blackboard - Textbook - Kuta Software
Sequences and Series	CC.2.2.HS.D.8 CC.2.2.HS.D.9 CC.2.2.HS.C.3	3 weeks	Arithmetic Sequences and Series Geometric Sequences and Series Infinite Geom Series Sigma Notation Binomial Expansion	- Teacher created assessments (quizzes/tests) - Blackboard	Students are allowed to retest if needed.	- OneNote - Blackboard - Textbook - Kuta Software

Exponential and Logarithmic Function	CC.2.1.HS.F.1 CC.2.1.HS.F.2 CC.2.1.HS.F.4 CC.2.1.HS.F.3 CC.2.1.HS.F.5 CC.2.2.HS.D.1 CC.2.2.HS.D.2 CC.2.2.HS.D.7 CC.2.2.HS.D.8 CC.2.2.HS.D.9 CC.2.2.HS.D.10 CC.2.2.HS.C.2 CC.2.2.HS.C.3 CC.2.2.HS.C.4 CC.2.2.HS.C.5 CC.2.2.HS.C.6	5 weeks	Exponents, Radicals, Rational Exponents, Negative Exponents Exponential Functions The Number e Logarithmic Expressions Logarithmic Properties Common Logarithms Natural Logarithms Logarithmic Functions Solving Exponential and Logarithmic Equations Applications	- Teacher created assessments (quizzes/tests) - Blackboard	Students are allowed to retest if needed.	- OneNote - Blackboard - Textbook - Kuta Software
Intro to Calculus	CC.2.2.HS.D.4 CC.2.2.HS.D.5 CC.2.2.HS.D.7 CC.2.2.HS.C.1 CC.2.2.HS.C.2	3 weeks	Limits Limit Definition of a Derivative Derivative Properties Derivative Applications	- Teacher created assessments (quizzes/tests) - Blackboard	Students are allowed to retest if needed.	- OneNote - Blackboard - Textbook - Kuta Software