

Grade Level	High School
Class Title	Pre-Calculus
Subject	Pre-Calculus Requirements: Successful completion of both Algebra 3-4 and Geometry.
Class Description	<p>The estimated instructional hours for this class are 5 hours per week. This class meets the graduation requirement for the State of Washington and the Kennewick School District and meets at least one common core standard or state standard in the subject area. This course is a year-long for 2020-2021. Students who successfully complete the course have the potential to earn 1.0 credit.</p> <p>Topics covered include: Algebra and Geometry Review, Equations and Inequalities, Graphs and Functions, Polynomial and Rational Functions, Exponential and Logarithmic Functions, Trigonometric Functions, Trigonometric Identities and Equations, and Additional Topics in Trigonometry.</p> <p>*HQT STATEMENT: A team of certificated teachers who are highly qualified in this subject matter has reviewed this WSLP.</p> <p>Weekly meetings with the HQ teacher are required.</p>
Learning Materials	<p>Computer with internet connection and Aleks Pre-Calculus course.</p> <p>Keeping a notebook of study sheets is helpful during the course.</p>
Learning Goals/Performance Objectives	<p>Students will be able understand and successfully complete problems in the following areas.</p> <p>Algebra and Geometry Review Real Numbers and Algebraic Expressions Exponents Polynomial Expressions Factoring Polynomials Rational Expressions Perfect Squares and nth Roots Rational Exponents Radical Expressions Geometry</p> <p>Equations and Inequalities Linear Equations and Applications Absolute Value Equations Linear Inequalities and Applications Rational Equations that Simplify to Linear Complex Numbers Quadratic Equations Rational Equations that Simplify to Quadratic Radical Equations</p>

Graphs and Functions

The Coordinate Plane, Distance, and Midpoint
Graphs of Equations
Slope and Equations of Lines
Linear Applications
Circles
Functions
Graphs of Functions
Transformations
Combining Functions; Composite Functions; Inverse Functions

Polynomial and Rational Functions

Quadratic Functions
Polynomial Functions
Division of Polynomials; Remainder and Factor Theorems
Real Zeros of Polynomial Functions
Complex Zeros of Polynomials Functions
Rational Functions
Polynomial and Rational Inequalities

Exponential and Logarithmic Functions

Graphing Exponential Functions
Applications of Exponential Functions
Logarithmic Functions
Properties of Logarithms
Logarithmic and Exponential Equations
Applications

Trigonometric Functions

Angles and Their Measure
The Unit Circle and Evaluating Trigonometric Functions
Right Triangle Trigonometry
Trigonometric Functions of Angles
Graphs of Sine and Cosine Functions
Graphs of Other Trigonometric Functions
Inverse Trigonometric Functions

Trigonometric Identities and Equations

Verifying Trigonometric Identities
Sum and Difference Formulas
Double-Angle, Half-Angle, Product-to-Sum, and Power Reducing Formulas
Trigonometric Equations

Additional Topics in Trigonometry

Laws of Sines and Cosines

This course meets graduation requirements and is part of their profile of navigation and planning for graduation. Course work is aligned with the standards of the course topic through national and local curriculum of best practices.

Learning Activities	Students will complete Aleks activities and performance assessments.
Progress Criteria/Methods of Evaluation	Students will meet monthly with the HQ teacher. Monthly Progress will be marked satisfactory or unsatisfactory based on the progress of the topics completed. Final grades will be taken from the number of topics completed for the course. 50% - S for Pre-Calculus 1 62% - A for Pre-Calculus 1 78% - A for Pre-Calculus 1 and S for Pre-Calculus 2 86% - A for Pre-Calculus 1 and B for Pre-Calculus 2 97% - A for Pre-Calculus 1 and A or Pre-Calculus 2
Cedars Codes:	High School: 2401 / 2401