

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 <b>5 hours</b> 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 <b>year-long</b>. Students who successfully complete the course have the potential to earn <b>1.0</b> 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><b>Algebra and Geometry Review</b>  Real Numbers and Algebraic Expressions  Exponents  Polynomial Expressions  Factoring Polynomials  Rational Expressions  Perfect Squares and nth Roots  Rational Exponents  Radical Expressions  Geometry</p> <p><b>Equations and Inequalities</b>  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