



AB Calculus High School

1.0 Students will apply concepts of number and operations.

- 1.1 Demonstrate number sense and evaluate reasonableness of the results from computation.
- 1.2 Analyze the effects of mathematical operations on numbers.

2.0 Students will apply concepts of algebra.

- 2.1 Understand relations and functions and use various representations for them.
- 2.2 Analyze functions symbolically, numerically and graphically.
- 2.3 Write equivalent forms of expressions, equations, inequalities and systems of equations and solve them.
- 2.4 Use symbolic algebra to analyze mathematical relationships.

3.0 Students will apply concepts of geometry.

- 3.1 Compare and contrast relationships among classes of two- and three-dimensional geometric objects, make and test conjectures about them, and solve problems involving them.
- 3.2 Establish the validity of geometric conjectures using deduction, proving theorems and critiquing arguments made by others.
- 3.3 Use coordinate systems to analyze geometric situations.
- 3.4 Understand and represent transformations of objects in the plane.

4.0 Students will apply concepts of measurement.

- 4.1 Make decisions about units and scales that are appropriate for problem situations involving measurement.
- 4.2 Analyze precision, accuracy and approximate error in measurement situations.
- 4.3 Understand and use formulas for the area, surface area and volume of geometric figures, including cones, spheres and cylinders.

5.0 Students will apply concepts of data analysis and probability.

- 5.1 Represent, analyze, interpret and use various representations of data.