

Course Power Standards (Enduring Understandings)

Department: **Mathematics**

Course: **Algebra 2**

Instructor(s): **Brad Crowther, Ken Frost, Megan Inouye, Steve Jackson, Bonnie Jennings, Amanda Richardson, Mandy Spangler**

Students will understand that...

- 1) The properties of algebra is the key to solving linear equations and inequalities.
- 2) Functions and graphs of functions are used to model predictable relationships.
- 3) We can use the algebra and graphing skills we have been learning to find common solutions to more than one equation.
- 4) Quadratic functions describe real situations. Finding the zeros, maximums, and minimums help in understanding these situations.
- 5) Factoring polynomials leads to solving polynomial equations.
- 6) Radical expressions and functions can be written as rational powers, and the rules of exponents extend to rational powers.
- 7) Functions can be combined through a variety of ways.
- 8) Many situations in our world can be modeled using exponential and logarithmic functions.
- 9) Rational expressions behave just like fractions.
- 10) Permutations and combinations help to calculate probability. Predicting probability depends on the circumstances of the events
- 11) Measures of variability, or how far we are from center, are our main tool in analyzing data.
- 12) Ratios of side lengths in right triangles allow us to determine unknown sides and/or angles.
- 13) Trigonometric functions are periodic which means their graphs repeat at regular intervals.