Algebra 2
Pacing Guide

First 4.5 Weeks		Second 4.5 Weeks		Third 4.5 Weeks		Fourth 4.5 Weeks	
Standard	Days	Standard	Days	Standards	Days	Standards	Days
Build Relationships & Establish Routines Number sense routines *this is to continue at least 3 times a week throughout the rest of the course* Spiral Reviews will be done daily throughout the course	3	**A2.3 b,c,d** - Quadratic, Rational and Radical Equations and Inequalities The student will solve b) quadratic equations over the set of complex numbers - techniques to include factoring, square roots, graphing, quadratic formula and completing the square c) equations containing rational algebraic expressions d) equations containing radical expressions	10	**A2.7a-k** - Components of Functions Functions The student will investigate and analyze linear, quadratic, absolute value, square root, cube root, rational, polynomial, exponential and logarithmic function families algebraically and graphically. Key components include: a) domain, range and continuity b) intervals in which a function is increasing or decreasing c) extrema d) zeros e) intercepts f) values of a function for elements in its domain g) connections between and among multiple representations of functions using verbal descriptions, tables, equations and graphs h) end behavior i) vertical and horizontal asymptotes j) inverse of functions and k) composition of functions algebraically and graphically	15	**A2.10** - Variations Statistics The student will represent and solve problems, including practical problems involving inverse variation, joint variation and a combination of direct and inverse variations	2
A2.1a,b,c - Radicals, Rationals and Factoring Expressions and Operations The student will a) add, subtract, multiply, divide and simplify rational algebraic expressions b) add, subtract, multiply, divide and simplify radical expressions containing rational numbers and variables and expressions containing rational exponents and c) factor polynomials completely in one or two variables	15	**A2.4** - Systems Solving systems of linear equations and inequalities A.4 The student will solve systems of linear-quadratic and quadratic-quadratic equations algebraically and graphically	4	**A2.8** - Relationship between solutions and equations Functions The student will investigae and describve the relationships among solutions of an equation, zeros of a function, x-intercepts of a graph and factors of a polynomial expression	3	**A2.11a,b,c** - Normal Distributions Statistics The student will a) indentify and describe properties of a normal distribution b) interpret and compare z-scores for normally distributed data and c) apply properties of normal distribution to determine probablities associated with areas under the standard normal curve.	4
A2.2 - Complex Numbers Expressions and Operations The student will perform operations on complex numbers (add, subtract, multiply and divide - ratioanlizing the denominator and express the results in simplest form using patterns of the powers of i.	4	**A2.5** - Sequences and Series Functions The student will investigate and apply the properties of arithmetic and geometric sequences and series to solve practical problems, including writing the first n terms, determining the nth term and evaluating summation formulas. Notation will include sigma and a sub n	5	**A2.9** - Best Fit Statistics The student will collect and analyze data, determine the equation of the curve of best fit in order to make predictions, and solve practical problems, using mathematical models of quadratic and exponential functions	3	**A2.12** - Permutations and Combinations Statistics The student will compute and distinguish between permutations and combinations	2
A2.3a - Absolute Value Equations and Inequalities The student will solve absolute value linear equations and inequalities - solutions may be expressed in different formats - set notation, interval notation, graphically and using inequality symbols	4	**A2.6a,b** - Parent functions and Transformations Functions For absolute value, square root, cube root, rational, polynomial, exponential and logarithmic functions the student will a) recognize the general shape of function families and b) use knowledge of transformations to convert between equations and the corresponding graphs of frunctions	3			SOL Prep	6
						Trigonometry	2
Standards covered = 2 plus	26	Standards covered = 3 plus	22	Standards covered = 3	21	Standards covered = 3	16
						Total = 85 days leaving 4 days for Benchmarks and Review for Benchmarks	85