PACING GUIDE
Algebra II

Quarter 1

DAYS	ESSENTIAL OUTCOME	LEARNING GOAL(S)	SKILLS	BUN #	SUGGESTED ACTIVTIES	FORMATIVE ASSESSMENT
Days 1-10	1A	Students will understand and be able to recognize, interpret, and graph various types of functions and relations (linear, quadratic, exponential, absolute value, piecewise, step), and find a linear equation of best fit and use it to make predictions.	Recognizing various forms of the functions, analyzing graphs for their unique form, draw and use line of best fit to make a prediction, write an equation of a line given 2 points.	7	Discussion, White boards, graphing calculators, justifying solutions	**1A**
Days 11-15	1B	Students will understand and be able to solve and graph inequalities.	Understand greater than, and less than for linear equations.	7	Justify solutions	**1B**
Days 16-25	2	Students will understand and use function notation. (Add, subtract, multiply and divide pairs of functions), use compositions of functions and combine functions by composition.	Order of operations, evaluating expressions, FOIL, rules of exponents, combining like terms	5	Use of calculators	**2**
Days 26-35	3	Students will understand and use substitution, elimination, and determinants to solve systems of two or three linear equations in two or three variables, and use systems of linear equations and inequalities	Graphing lines, common multiples (LCM}, evaluating a determinant, substitution & distributive properties of equalities, other properties of equality/inequalities, know symbols of inequality (<,>, not equal, …)	10	Problems and applications, use of calculators	**3**
Days 36-42	4A	Students will understand and be able to divide polynomials by monomials, polynomials by other polynomials using long or synthetic division.	Find the GCF, distributive property, FOIL, graphing	9	Connecting topics	**4A**

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Algebra II

Quarter 2

DAYS	ESSENTIAL OUTCOME	LEARNING GOAL(S)	SKILLS	BUN #	SUGGESTED ACTIVTIES	FORMATIVE ASSESSMENT
Days 1-10	4B	Students will understand and be able to solve and factor polynomial equations, use polynomial equations to solve word problems and write a polynomial given its solutions.	Find the GCF, distributive property, FOIL, graphing	9	Applications, content integration	**4B Qtr 1**
Days 11-15	4C	Students will understand and be able to use graphing technology to find approximate solutions for polynomial equations, describe the relationships among the solutions of an equation, the zeros of a function, the x-intercepts of a graph, and the factors of a polynomial expression.	Find the GCF, distributive property, FOIL, graphing	9	Use of graphing calculator, connecting topics	**4C**
Days 16-25	5A	Students will understand and be able to add, subtract, multiply, divide and simplify algebraic fractions, and be able to simplify complex fractions.	Operations with fractions, Solving proportions—means and extremes, factoring	6	Content integration, understanding concepts	**5A**
Days 26-30	5B	Students will understand and be able to solve equations involving algebraic fractions, solve word problems involving fractional equations, and be able to solve problems of direct, inverse, and joint variation	Operations with fractions, Solving proportions—means and extremes, factoring	6	Applications, understanding key concepts	**5B**
Days 31-40	6A	Students will understand and be able to simplify radicals, and use negative and fractional exponents.	Prime factorization, recognition of perfect squares, cubes, powers…	2	Content integration, understanding key concepts	**6A Qtr 2**

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Algebra II

Quarter 3

DAYS	ESSENTIAL OUTCOME	LEARNING GOAL(S)	SKILLS	BUN #	SUGGESTED ACTIVTIES	FORMATIVE ASSESSMENT
Days 1-5	6B	Students will understand and be able to solve equations that contain radical expressions.	Prime factorization, recognition of perfect squares, cubes, powers…	2	Content integration, applications	**6B**
Days 6-10	7	Student will understand and be able to define complex numbers and perform basic operations with them.	Apply rules to simplify complex numbers.	3	Connecting topics, key concepts	**7**
Days 11-20	8A	Students will understand and be able to factor quadratics, complete the square, and be able to use the quadratic formula to find various types of solutions including complex.	Simplify radicals, simplify complex numbers, creating T-chart	1	Flip chart, recognizing patterns	**8A**
Days 21-40	8B	Students will understand and graph a quadratic equation, be able to solve word problems using quadratic equations, understand and be able to solve pairs of equations, one quadratic and one linear or both quadratic.	Simplify radicals, simplify complex numbers, creating T-chart	1	Applications, white boards, graphing technology	**8B**
Days 41-47	9A	Students will understand and be able to write the equation of conic sections (circle, ellipse, parabola, and hyperbola.).	Completing the square, graphing equations	4	Flip chart, similarities and differences	**9A** **Qtr 3**

PACING GUIDE
Algebra II

Quarter 4

DAYS	ESSENTIAL OUTCOME	LEARNING GOAL(S)	SKILLS	BUN #	SUGGESTED ACTIVTIES	FORMATIVE ASSESSMENT
Days 1-7	9B	Students will understand and be able to graph and identify the parts of conic sections.	Completing the square, graphing equations	4	Graphing calculators, white boards, flip charts	**9B**
Days 8-17	10	Students will understand and be able to use the inverse relationship between exponents and logarithms, solve logarithmic and exponential equations and inequalities and be able to use calculators to find decimal approximations of natural and common logarithmic numeric expressions.	Solving equations, using the Laws of exponents. graphing equations	8	Flip chart, use of calculators	**10**
Days 18-27	11	Students will understand and be able to find terms in sequences, and find partial sums of arithmetic and geometric series.	How to use technology to assist in finding solutions, use the laws (rules) of exponents, know the order of operations, solving equations for a given variable (literal equations)	11	Use of calculators, advance organizers	**11**
Days 28-37	12	Students will understand and be able to compute combinations and permutations, and use combinations and permutations to compute probabilities.	Use factorial function, use technology to assist in problem solving, use formulas correctly.	12	Advance organizers, content integration, applications	**12** **Qtr 4**