

Wyoming Department of Education Required Virtual Education Course Syllabus

Natrona County School District # 1

Program Name	Natrona Virtual Learning	Content Area	MA
Course ID	NCV02056.1	Grade Level	9, 10, 11, 12
Course Name	Algebra 2 Sem 1	# of Credits	0.5
SCED Code	02056G0.5012	Curriculum Type	Odysseyware

COURSE DESCRIPTION

Algebra II is a high school math course intended for the student who has successfully completed the prerequisite course Algebra I. This course focuses on algebraic techniques and methods in order to develop student understanding of advanced number theory, concepts involving linear, quadratic and polynomial functions, and pre-calculus theories. This course also integrates geometric concepts and skills throughout the units, as well as introducing students to basic trigonometric identities and problem solving.

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets
A.CED.1	Create equations and inequalities in one variable and use them to solve problems. Include equations arising from linear and quadratic functions, and simple rational and exponential functions.*
A.CED.3	Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or non-viable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.*
A.APR.7	(+)Understand that rational expressions form a system analogous to the rational numbers, closed under addition, subtraction, multiplication, and division by a nonzero rational expression; add, subtract, multiply, and divide rational expressions.
F.BF.3	Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x + k)$ for specific values of k (both positive and negative); find the value of k given the graphs. Experiment with cases and illustrate an explanation of the effects on the graph using technology. Include recognizing even and odd functions from their graphs and algebraic expressions for them.
S.CP.1	Describe events as subsets of a sample space (the set of outcomes) using characteristics (or categories) of the outcomes, or as unions, intersections, or compliments of other events ("or," "and," "not").

SCOPE AND SEQUENCE

UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS
UNIT 1: Set, Structure, and Function	S.CP.1	Find the subsets of a set. Count the number of elements in a sequence. Review the distributive property and order of operations Write exponents in expanded (non-exponential) form.
UNIT 2: Numbers, Sentences, and Problems	A.CED.1	Use equal, greater than, and less than signs to order numbers Review and practice solving linear equations with the addition property Solve linear equalities Solve problems involving rate, distance, and time.

UNIT 3: Linear Equations and Inequalities	A.CED.3	Identify linear and nonlinear equations Use the graph of a line to write the equation of the line in point-slope form. Solve a system of two equations by using the addition property of equality.
UNIT 4: Polynomials	A.APR.7	
UNIT 5: Algebraic Fractions	F.BF.3	Simplify algebraic expressions. Evaluate algebraic expressions Add and subtract algebraic fractions Identify basic characteristics of a rational function.