

Wyoming Department of Education Required Virtual Education Course Syllabus

Natrona County School District # 1

Program Name	Natrona Virtual Learning	Content Area	MA
Course ID	NCV02052.1	Grade Level	9,10,11,12
Course Name	Algebra 1 Sem 1	# of Credits	0.5
SCED Code	02052G0.5012	Curriculum Type	Odysseyware

COURSE DESCRIPTION

Algebra I is a high school credit course that is intended for the student who has successfully mastered the core algebraic concepts covered in the prerequisite course, Pre-Algebra. Within the Algebra I course, the student will explore basic algebraic fundamentals such as evaluating, creating, solving and graphing linear, quadratic, and polynomial functions.

WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets
N.RN.2	Rewrite expressions involving radicals and rational exponents using the properties of exponents.
A.SSE.1	Interpret expressions that represent a quantity in terms of its context.*
A.REI.10	Understand that the graph of an equation in two variables is the set of all its solutions plotted in the coordinate plane, often forming a line, a circle, or another curve.
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 complements of sets.
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 radical equations in one variable, and systems of linear equations and systems of inequalities in one variable. Solve quadratic equations and inequalities. For quadratic equations and functions, identify the zeros, vertex, and other key features of the graph, and sketch the graph from the equation. Interpret solutions of a system of equations and inequalities in one variable.

SCOPE AND SEQUENCE

UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS
UNIT 1: Foundations of Algebra	N.RN.2	Identify a variable expression and its components: variable, coefficient, constant. Translate expressions written as English phrases into algebraic expressions. Interpret an algebraic expression.
UNIT 2: Linear Equations	A.SSE.1	Simplify algebraic expressions using properties of zero and one. Translate sentences into algebraic equations. Write an equation to represent a word problem.
UNIT 3: Functions	A.REI.10	Identify the axes, origin, and quadrants in the coordinate plane. Identify and plot points in the coordinate plane. Identify the quadrant in which a point lies in the coordinate plane. Write an equation to express a relationship between coordinates in the plane.
UNIT 4: Inequalities	S.CP.1	Write a set using the listing or rule method. Identify and determine the number of subsets of a set. Use set builder notation to express a set. Graph a set of numbers on the number line. Write the set that is represented by a graph.

UNIT 5: Linear Systems

A.CED.1

Identify a solution of a linear system graphically. Determine the number of solutions of a linear system. Identify if a linear system is consistent, inconsistent, or equivalent. Recognize special cases algebraically.