

# Wyoming Department of Education Required Virtual Education Course Syllabus

## Park County School District # 1

Program Name	Park #1 Online	Content Area	Math
Course ID	OL5453	Grade Level	9th-12th
Course Name	FVS Algebra 2 (S2)	# of Credits	0.5
SCED Code	02056G0.5022	Curriculum Type	Math

### COURSE DESCRIPTION

*Semester-long course purchased through Florida Virtual and used for our district students. This course allows students to learn while having fun. Interactive examples help guide students' journey through customized feedback and praise. Mathematical concepts are applied to everyday occurrences such as earthquakes, stadium seating, and purchasing movie tickets. Students investigate the effects of an equation on its graph through the use of technology. Students have opportunities to work with their peers on specific lessons. Algebra II is an advanced course using hands-on activities, applications, group interactions, and the latest technology.*

### WYOMING CONTENT AND PERFORMANCE STANDARDS

STANDARD#	<a href="#">BENCHMARK (Standard/Indicator) Use the Standards and Benchmarks as Spreadsheets</a>
WY.MP	Mathematical Practices
	Make sense of problems and persevere in solving them, Reason abstractly and quantitatively, Construct viable arguments and critique the reasoning of others, Model with mathematics, Use appropriate tools strategically, Attend to precision, Look for and make use of structure, Look for and express regularity in repeated reasoning
WY.N	Number and Quantity
N-RN N-Q N-CN	The Real Number System, Quantities, The Complex Number System
WY.A	Algebra
A-SSE A-APR A-CED A-REI	Seeing Structure in Expressions, Arithmetic with Polynomials and Rational Functions, Creating Equations, Reasoning with Equations and Inequalities
WY.F	Functions
F-IF F-BF F-LE F-TF	Interpreting Functions, Building Functions, Linear and Exponential Models, Trigonometric Functions
WY.G	Geometry
G-SRT G-C	Similarity, Right Triangles, and Trigonometry, Circles
WY.S	Statistics and Probability
S-ID S-IC S-CP	Interpreting Categorical and Quantitative Data, Making Inferences and Justifying Conclusions, Conditional Probability and the Rules of Probability

### SCOPE AND SEQUENCE

UNIT OUTLINE	STANDARD#	OUTCOMES OBJECTIVES/STUDENT CENTERED GOALS
06.01 Solving Systems of Equations	MP.3 A.REI.J.5, 7, 9	How do you solve systems of equations?
06.02 Solving Systems of Non-Linear Equations	MP.3 A.REI.J.7-9	How do you solve systems of non-linear equations?
06.03 Graphing Systems of Linear Equations	MP.1-8 A.REI.J.8-12	How do you graph systems of linear equations?
06.05 Graphing Systems of Non-Linear Equations	MP.4 A.REI.K.8-11	How do you graph systems of non-linear equations?
07.01 Exponential Functions	MP.4 F.LE.F.2 F.LE.F.5	What are exponential functions?
07.02 Logarithmic Functions	MP.5 A.REI.K.11	What are logarithmic functions?
07.03 Properties of Logarithms	MP.5 F.IF.C.7 A.REI.K.11	What are the properties of logarithms?
07.04 Solving Exponential Equations with Unequal Bases	MP.5 A.REI.H.1 A.REI.H.2	How do you solve exponential equations with unequal bases?
07.06 Graphing Exponential Functions	MP.5 F.LE.F.1, 2 S-MD.H.4	How do you graph exponential functions?
07.07 Graphing Logarithmic Functions	MP.5 A.REI.K.11 F.LE.F.4	How do you graph logarithmic functions?
07.08 Exponential and Logarithmic Functions	MP.5 F.IF.C.7 A.REI.K.11	What are exponential and logarithmic functions?
08.01 Arithmetic Sequences	MP.5 F.IF.A.3	What are arithmetic sequences?
08.02 Arithmetic Series	MP.5 G.CO.B.6	What are arithmetic series?
08.03 Geometric Sequences	MP F.IF.A.3	What are geometric sequences?
08.04 Geometric Series	MP.5 G.CO.B.6	What are geometric series?
08.06 Sigma Notation	MP.5 N.RN.A.1 A.SSE.B.3	What is sigma notation?
08.07 Infinite, Convergent and Divergent Series	MP.5 A.APR.B.4	What are infinite, convergent and divergent series?
08.08 Graphing Series	MP.5 A.APR.B.4	How do you graph series?

09.01 Events and Outcomes in a Sample Space	MP.7 S.CP.F.1	What events and outcomes are in a sample space?
09.02 Independent Probabilities	MP.7 S.CP.F.2	What are independent probabilities?
09.03 Conditional Probability	MP.7 S.CP.F.2	What is a conditional probability?
09.05 Normal Distribution	MP.7 S.CP.F.2	What is normal distribution?
09.06 Models of Populations	MP.7 S.CO.F.2, 3	What are some models of populations?
09.07 Using Surveys	MP.4 S.IC.E.3-5	How do you use surveys?
09.08 Using Experiments	MP.4 S.IC.E.6	How do you use experiments?
10.01 Introduction to the Unit Circle	MP.5 F.TF.H.1 F.TF.H.2 F.TF.H.3	What is the unit circle?
10.02 Unit Circle and the Coordinate Plane	MP.5 F.TF.H.1-3	What is the unit circle and the coordinate plane?
10.04 Trigonometric Functions with Periodic Phenomena	MP.5 F.TF.I.5-7	What are trigonometric functions with periodic phenomena?
10.05 Pythagorus, Trigonometry and Quadrants	MP.5 G.SRT.G.8	What are Pythagorus, trigonometry and quadrants?
10.06 Functions of All Types	MP.5 S.ID.B.6, 8 S.MD.H.4 S.MD.I.6	What are some functions of all types?