

<div style="border: 1px solid black; padding: 5px; width: fit-content;"> <p style="text-align: center;">Legend</p> <p>Unit # ←sequence of units</p> <p>(_ days) ←number of days (or class periods)</p> <p>Unit Title</p> </div>	Unit 1 (10 days)	Unit 2 (10 days)	Unit 3 (10 days)	Unit 4 (15 days)	Unit 5 (15 days)	Unit 6 (15 days)	Unit 7 (15 days)	Unit 8 (15 days)	Unit 9 (15 days)	Unit 10 (15 days)
	Looking for Patterns	Linear Equations and Inequalities	Matrices	Functions, Relations, and Conics	Quadratic Equations, Inequalities, and Functions	Polynomials	Rational and Radical Expressions and Equations	Exponential and Logarithmic Functions	Trigonometry	Probability and Data Analysis
Algebra II Course Objectives										
A. Prerequisites										
1. Skills Acquired by Students in a Previous Course and Refined in This Course										
a. Identify properties of real numbers and use them and the correct order of operations to simplify expressions										
b. Multiply monomials and binomials										
c. Factor trinomials in the form $ax^2 + bx + c$										
d. Solve single-step and multistep equations and inequalities with one variable										
e. Solve systems of two linear equations using various methods, including elimination, substitution, and graphing										
f. Write linear equations in standard form and slope-intercept form when given two points, a point and the slope, or the graph of the equation										
g. Graph a linear equation using a table of values, x - and y -intercepts, or slope-intercept form										
h. Find the distance and midpoint between two points in the coordinate plane										
i. Use sine, cosine, and tangent ratios to find the sides or angles of right triangles										
j. Use inductive reasoning to make conjectures and deductive reasoning to arrive at valid conclusions										
B. Exploring the Skills and Strategies Underlying Mathematics										
1. Process Objectives Learned in the Context of Increasingly Complex Mathematical and Real-World Problems										
a. Apply problem-solving skills (e.g., identifying irrelevant or missing information, making conjectures, extracting mathematical meaning, recognizing and performing multiple steps when needed, verifying results in the context of the problem) to the solution of real-world problems				✓	✓	✓	✓	✓	✓	✓
b. Use a variety of strategies to set up and solve increasingly complex problems				✓	✓	✓	✓	✓	✓	✓
c. Represent data, real-world situations, and solutions in increasingly complex contexts (e.g., expressions, formulas, tables, charts, graphs, relations, functions) and understand the relationships				✓	✓	✓	✓	✓	✓	✓
d. Use the language of mathematics to communicate increasingly complex ideas orally and in writing, using symbols and notations correctly				✓	✓	✓	✓	✓	✓	✓
e. Make appropriate use of estimation and mental mathematics in computations and to determine the reasonableness of solutions to increasingly complex problems				✓	✓	✓	✓	✓	✓	✓
f. Make mathematical connections among concepts, across disciplines, and in everyday experiences				✓	✓	✓	✓	✓	✓	✓
g. Demonstrate the appropriate role of technology (e.g., calculators, software programs) in mathematics (e.g., organize data, develop concepts, explore relationships, decrease time spent on computations after a skill has been established)				✓	✓	✓	✓	✓	✓	✓
h. Apply previously learned algebraic and geometric concepts to more advanced problems				✓	✓	✓	✓	✓	✓	✓
C. Establishing Number Sense and Operation Skills										
1. Foundations										
a. Identify complex numbers and write their conjugates					✓					
b. Add, subtract, and multiply complex numbers					✓					
c. Simplify quotients of complex numbers					✓					
d. Perform operations on functions, including function composition, and determine domain and range for each of the given functions				✓			✓	✓		

= Course objectives taught in instructional unit

✓ = Course objectives to be taught in instructional units not currently available