

ALGEBRA PART II
GRADES 10
(2 Semesters – Prerequisite: Algebra I or Teacher Recommendation)

COURSE OVERVIEW:

Algebra Part II represents the completion of the study of first-year algebra and the preparation for geometry and further advanced courses. Algebra Part II is the approach to problem solving, which stresses not only basic algebraic skills, but also the structure of the real number system. All of the topics of elementary algebra through quadratics are studied.

UNITS OF INSTRUCTION:

- UNIT I - Simplifying, Solving and Graphing
- UNIT II - Systems of Linear Equations
- UNIT III - Systems of Linear Inequalities
- UNIT IV - Absolute Value - Graphing
- UNIT V - Absolute Value - Solving
- UNIT VI - Powers and Exponents
- UNIT VII - Exponential Growth and Decay
- UNIT VIII - Polynomials
- UNIT IX - Rational Expressions and Equations
- UNIT X - Radicals
- UNIT XI - Quadratics - Graphing
- UNIT XII - Quadratics - Solving
- UNIT XIII - Functions

STUDENT OUTCOMES:

<ol style="list-style-type: none">1.2.3.4.5.	<p>Build on the algebraic skills developed in Algebra Part I. This includes solving/graphing linear equations, inequalities, absolute values, quadratic equations, and systems of equations. Emphasis is placed on powers and exponents, exponential growth and decay, polynomials, rational expressions and radicals. (8A, 8B, 8C, 8D, 7A, 9A, 9B, 10A)</p> <p>Provide opportunities for students to explore and solve mathematical problems. (8C)</p> <p>Develop critical thinking and writing skills.</p> <p>Develop the ability to communicate mathematical ideas clearly.</p> <p>Recognize the relevance of mathematics.</p> <p>This course addresses the follow state standards: 6A, 6B, 6C, 6D, 7A, 7C, 8A, 8B, 8C, 8D, 10A, and 10B.</p>
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MAJOR LEARNING EXPERIENCES TO ACHIEVE OUTCOMES:

<ol style="list-style-type: none">1.2.	<p>Compose written wok to explain mathematical concepts and ideas.</p> <p>Students are required to become proficient in the use of a scientific calculator.</p>
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ADOPTED TEXT OR PRINCIPAL MATERIALS USED:

<p>Larson, Kanold, Stiff. <i>Algebra I: An Integrated Approach</i>. D.C. Heath/McDougall Littell, 1998.</p>

(05/18/00)