

# Exam for Credit Information Algebra 2 Syllabus

Only a scientific calculator will be allowed for this exam

## **Units of Study**

#### Quarter 1:

- Function Families: parent functions and transformations
- Solving linear systems of equations
- Quadratic Functions: transformations, characteristics, modeling

#### Quarter 2:

- Quadratic Equations and Complex Numbers: Solving, operations with complex numbers, vertex and intercept form, quadratic formula, inequalities
- Solving Nonlinear Systems of Equations
- Polynomial Functions: graphing, operations, factoring, solving polynomial equations, transformations, analyzing graphs
- Rational Exponents and Radical Functions: properties, simplifying radicals, graphing, solving, finding inverses

#### Quarter 3:

- Exponential and Logarithmic Functions: graphing, transformations, analyzing, properties, solving
- Rational Functions: inverse and direct variation, graphing, operations with rational expressions, solving

#### Quarter 4:

- Trigonometry: Right Triangle, radian measure, unit circle, graphing
- Probability: Two-way tables, disjoint and overlapping events, permutations, combinations, binomial distribution
- Statistics: Normal distribution, sampling, experimental design, margin of error, making inferences
- Sequences and Series: arithmetic, geometric, explicit and recursive formulas, sums of series

### Resource

❖ Algebra 2 – Big Ideas Bridge to Success (2015)

Only a scientific calculator will be allowed for this exam