

Syllabus: Algebra II A for Credit Recovery

Starting with a review of basic algebra, you will learn polynomials, quadratic equations, exponential and logarithmic relations, and probability and statistics. Throughout the course, these mathematical concepts are applied to everyday occurrences to get a better understanding of how the world around us functions.

Segment I

Module 01: Review of Algebra

- 01.00: Introduction and Pretest
- 01.01: Algebra 1 Review
- 01.02: Introduction to Functions
- 01.03: Module One Quiz
- 01.04: Graphing Linear Equations and Inequalities
- 01.05: Writing the Equation of a Line
- 01.06: Comparing Functions
- 01.07: Module One Review and Practice Test
- 01.08: Discussion-Based Assessment
- 01.09: Module One Test

Module 02: Rational, Complex, and Polynomials

- 02.00: Module Two Pretest
- 02.01: Rational Exponents
- 02.02: Properties of Rational Exponents
- 02.03: Solving Radical Equations
- 02.04: Module Two Quiz
- 02.05: Complex Numbers
- 02.06: Operations of Complex Numbers
- 02.07: Review of Polynomials
- 02.08: Polynomial Operations
- 02.09: Module Two Review and Practice Test
- 02.10: Discussion-Based Assessment
- 02.11: Module Two Test

Module 03: Factoring and Quadratics

- 03.00: Module Three Pretest
- 03.01: Greatest Common Factors and Special Products
- 03.02: Factoring by Grouping
- 03.03: Sum and Difference of Cubes
- 03.04: Graphing Quadratics
- 03.05: Module Three Quiz
- 03.06: Completing the Square
- 03.07: Solving Quadratic Equations
- 03.08: Solving Quadratic Equations with Complex Solutions
- 03.09: Investigating Quadratics

- 03.10: Module Three Review and Practice Test
- 03.11: Discussion-Based Assessment
- 03.12: Module Three Test

Module 04: Dividing and Solving Polynomials

- 04.00: Module Four Pretest
- 04.01: Polynomial Long Division
- 04.02: Polynomial Synthetic Division
- 04.03: Theorems of Algebra
- 04.04: Rational Root Theorem and Descartes' Rule of Signs
- 04.05: Solving Polynomial Equations
- 04.06: Module Four Quiz
- 04.07: Graphing Polynomial Functions
- 04.08: Polynomial Identities and Proofs
- 04.09: Module Four Review and Practice Test
- 04.10: Discussion-Based Assessment
- 04.11: Module Four Test

Module 05: Rational Expressions

- 05.00: Module Five Pretest
- 05.01: Simplifying Rational Expressions
- 05.02: Multiplying and Dividing Rational Expressions
- 05.03: Adding and Subtracting Rational Expressions
- 05.04: Simplifying Complex Fractions
- 05.05: Module Five Quiz
- 05.06: Discontinuities of Rational Expressions
- 05.07: Asymptotes of Rational Functions
- 05.08: Solving Rational Equations
- 05.09: Applications of Rational Equations
- 05.10: End-of-Module Check
- 05.11: Module Five Review and Practice Test
- 05.12: Discussion-Based Assessment
- 05.13: Module Five Test
- 05.14: Segment One Check
- 05.15: Segment One Exam Review
- 05.16: Segment One Exam

Course Assessment and Participation Requirements:

To achieve success, students are expected to submit work in each course weekly. To measure learning, students complete self-checks, practice lessons, multiple choice questions, projects, discussion-based assessments, and discussions. Students are expected to maintain regular contact with teachers. When teachers, students, and parents work together, students are successful.