

## Syllabus: Algebra II B 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 II

#### Module 06: Systems of Equations and Inequalities

- 06.00: Module Six Pretest
- 06.01: Solving Systems of Equations Algebraically
- 06.02: Solving Systems of Nonlinear Equations
- 06.03: Graphing Systems of Linear Equations
- 06.04: Module Six Quiz
- 06.05: Graphing Systems of Nonlinear Equations
- 06.06: Module Six Review and Practice Test
- 06.07: Discussion-Based Assessment
- 06.08: Module Six Test

#### Module 07: Exponential and Logarithmic Functions

- 07.00: Module Seven Pretest
- 07.01: Exponential Functions
- 07.02: Logarithmic Functions
- 07.03: Properties of Logarithms
- 07.04: Solving Exponential Equations with Unequal Bases
- 07.05: Module Seven Quiz
- 07.06: Graphing Exponential Functions
- 07.07: Graphing Logarithmic Functions
- 07.08: Exponential and Logarithmic Functions
- 07.09: Module Seven Review and Practice Test
- 07.10: Discussion-Based Assessment
- 07.11: Module Seven Test

#### Module 08: Sequences and Series

- 08.00: Module Eight Pretest
- 08.01: Arithmetic Sequences
- 08.02: Arithmetic Series
- 08.03: Geometric Sequences
- 08.04: Geometric Series
- 08.05: Module Eight Quiz
- 08.06: Sigma Notation
- 08.07: Infinite, Convergent, and Divergent Series
- 08.08: Graphing Sequences and Series
- 08.09: Module Eight Review and Practice Test
- 08.10: Discussion-Based Assessment

- 08.11: Module Eight Test

### **Module 09: Statistics**

- 09.00: Module Nine Pretest
- 09.01: Events and Outcomes in a Sample Space
- 09.02: Independent Probability
- 09.03: Conditional Probability
- 09.04: Module Nine Quiz
- 09.05: Normal Distribution
- 09.06: Models of Populations
- 09.07: Using Surveys
- 09.08: Using Experiments
- 09.09: Module Nine Review and Practice Test
- 09.10: Discussion-Based Assessment
- 09.11: Module Nine Test

### **Module 10: Trigonometry**

- 10.00: Module Ten Pretest
- 10.01: Introduction to the Unit Circle
- 10.02: Unit Circle and the Coordinate Plane
- 10.03: Module Ten Quiz
- 10.04: Trigonometric Functions with Periodic Phenomena
- 10.05: Pythagoras, Trigonometry, and Quadrants
- 10.06: Functions of All Types
- 10.07: End-of-Module Check
- 10.08: Module Ten Review and Practice Test
- 10.09: Discussion-Based Assessment
- 10.10: Module Ten Test
- 10.11: Segment Two Check
- 10.12: Segment Two Exam Review
- 10.13: Segment Two Exam

### **Course Assessment and Participation Requirements:**

To achieve success, students are expected to submit work in each course weekly. Students are expected to maintain regular contact with teachers. When teachers, students, and parents work together, students are successful.