Course Syllabus: Advanced Algebra

Course Description

Advanced Algebra is the third course in a sequence of courses designed to ensure career and college readiness. It is intended to prepare students for fourth mathematics course options relevant to their postsecondary pursuits. In Advanced Algebra, students will continue to enhance their data and statistical reasoning skills as they learn specific ways to collect, critique, analyze, and interpret data. Students will learn how to use matrices and linear programming to represent data and to solve contextually relevant problems. Students will strengthen their geometric and spatial reasoning skills as they learn how to solve trigonometric equations using the unit circle. In previous courses, students studied how to use linear and quadratic functions to model real-life phenomena. In Advanced Algebra, students will further develop their functional and graphical reasoning as they explore and analyze structures and patterns for exponential, logarithmic, radical, polynomial, and rational expressions, equations, and functions to further understand the world around them.

This course has three sections: Advanced Algebra A is the first half of the course and includes Units 1 – 3. Advanced Algebra B is the second half of the course and includes Units 4 – 7. Advanced Algebra Y is the entire course and includes Units 1 – 7.

This course includes the following Units:

Unit 1 – Descriptive and Inferential Statistics
Unit 2 – Exponential and Logarithmic Functions
Unit 3 – Investigating Radical Functions
Unit 4 – Modeling Polynomial Functions
Unit 5 – Investigating Linear Algebra and Matrices
Unit 6 – Trigonometry and the Unit Circle
Unit 7 – Exploring Rational Functions

Course Participation Policy

Students should follow the Class Schedule and all course work must be submitted no later than 11:59 PM on the due date.

After the due date has passed, instructors will enter zeros in the Grade Center for work not submitted by the deadline. During student breaks and towards the end of the semester, students may have the opportunity to improve their course grade by completing and submitting work with grades of zero from earlier in the semester. Zeros will remain in the Grade Center until course work is submitted and evaluated by the instructor.

The CVA term ends prior to the end of the traditional school semester. The final date work will be accepted each term is posted on the CVA website (cobbvirtualacademy.org).

Grading

Grades for the course are calculated based on category percentages as follows:

Advanced Algebra	
Categories	**Weights**
Assessment/Application Activity	50%
Test	40%
Final Exam	10%

Academic Integrity

Academic integrity is the cornerstone of learning at CVA and we take the integrity and authenticity of student work very seriously. When academic integrity is maintained, students will make decisions based on values that will prepare them to be productive, meaningful, and ethical citizens.

Students are required to abide by the CVA Academic Integrity Policy. Academic dishonesty in any form will not be tolerated. The CVA Academic Integrity Policy outlines the consequences if students fail to maintain academic integrity in their course. For additional information, the CVA Academic Integrity Policy is posted on the CVA website.

Additional General Information

- Students must complete the mandatory online CVA Student Orientation each term before any course work will be graded by the instructor.
- All course work must be submitted through CTLS in the format requested. Students should have access to Microsoft Office and submit assignments in that format. All CCSD students have access to the Office 365 Suite. Items submitted through email will not be accepted.
- Students in all sections of this course will take an online final exam during the times indicated on the CVA website.

Course Specific Information

- **Assessments and Application Activities**: After reviewing each lesson, students will complete an assessment and/or an application activity online. Each assessment has approximately 10 questions. The application activity has free-response questions.
- **Tests:** Students should carefully review the feedback on graded items and be sure to understand the material prior to beginning the Unit Test.