



# ALGEBRA 1 HONORS

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Insert Teacher Name

Insert Room Number

Insert Full Year/Semester

Insert Period

Insert Email Address

## COURSE DESCRIPTION

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In Algebra 1 Honors, students develop a deeper understanding of linear relationships emphasizing patterns of change, multiple representations of functions and equations, and methods for finding and representing solutions of equations and inequalities. Taken together, these ideas provide powerful conceptual tools that students can use to make sense of their world through mathematics. The course will extend the understanding of linear relationships to quadratics and exponential functions by contrasting them with each other. Students also engage in methods for analyzing, solving, and using quadratic functions, solving systems of equations and systems of inequalities and properties of exponents. Algebra 1 Honors goes beyond the standard Algebra I curriculum, with an emphasis on increased rigor, depth, and additional content standards. Strong pre-algebra skills are required.

## COURSE ENDURING UNDERSTANDINGS

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- A linear relationship has a constant rate of change, which can be visualized as the slope of the associated graph.
- There are many ways to algebraically represent a linear function and each form reveals different aspects of the function.
- Linear functions can be used to model contextual scenarios that involve a constant rate of change or data whose general trend is linear.
- A solution to a two-variable linear equation or inequality is an ordered pair that makes the equation or inequality true.
- A solution to a system of linear equations or inequalities is an ordered pair of numbers that satisfies all the equations or inequalities simultaneously.
- Solving a system of linear equations or inequalities is a process of determining the value or values that make the equation or inequality true.
- Systems of linear equations or inequalities can be used to model scenarios that include multiple constraints, such as resource limitations, goals, comparisons, and tolerances.
- Quadratic functions have a linear rate of change.
- Quadratic functions can be expressed as a product of linear factors.
- Quadratic functions can be used to model scenarios that involve a linear rate of change and symmetry around a unique minimum or maximum.
- Every quadratic equation,  $ax^2 + bx + c = 0$  where  $a$  is not zero, has at most two real solutions. These solutions can be determined using the quadratic formula.
- Properties of exponents are derived from the properties of multiplication and division.
- An exponential function has constant multiplicative growth or decay.
- Exponential functions can be used to model contextual scenarios that involve constant multiplicative growth or decay.
- Graphs and tables can be used to estimate the solution to an equation that involves exponential expressions.

## UNITS OF STUDY

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- Linear Functions and Linear Equations
- Systems of Linear Equations and Inequalities
- Quadratic Functions
- Exponent Properties and Exponential Functions

# COURSE POLICIES AND REQUIREMENTS

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## GRADING (see FPS BOE [Policy 6146.1AR](#))

### Cumulative/In-Progress Grade:

- 10% of the grade will be based on formative assessments, homework completion, and behavior.
- 90% will be based on summative assessments, of which there will be a minimum of eight, with no fewer than 2 per quarter, for this full-year course; these may include Unit Tests, Mid-Unit Tests, Projects, Performance tasks, Summative Quizzes, etc.

### End-of-the-Year Grade:

- 80% of the overall course grade will reflect the student's mastery of course content and skills during the school year through the Cumulative/In-Progress Grade.
- 10% of the End-of-the-Year course grade will be based on the Mid-Year Assessment.
- 10% of the End-of-the-Year course grade will be based on the Final Assessment.

### Grade Reporting

- All grades will be communicated through Infinite Campus.
- Summative assessment results will be reported back to the student within ten school days from the date of submission or the due date, whichever is later.
- Formative assessment results will be reported back to the student within five school days from the date of submission or the due date, whichever is later and prior to any subsequent assessment.

### Guidelines for Late Work:

- Late work will be accepted for both summative and formative tasks within a defined timeline agreed upon between the student and the teacher for excused absences.
- The total points may be reduced as a penalty for late work for unexcused absences. Students will earn a zero (0) if the assignment is not submitted or is submitted after the deadline for late work.

### Reassessments:

- Any extenuating circumstances may be discussed with administration to allow alternative reassessment opportunities with administrative approval.
- Reassessment opportunities are defined as twice per year (with a maximum of one per quarter) for assignments that students met the original required deadlines and do not violate the academic integrity policy. Reassessment does not apply to midyear assessments or final assessments.
- Gradebook impact of Reassessment: original and reassessment scores will be averaged in the gradebook.

## MATERIALS

[PreAP Algebra 1 Classroom](#)

(Insert Course Materials Here, ie. Textbook, Binder, Calculator, Highlighters)

## EXPECTATIONS OF STUDENTS

(Insert Course Expectations Here)

## EXTRA HELP

(Insert Course Expectations Here)