



**Algebra I Extended Standards Syllabus
CHS Special Education Department**

Contact Information: Parents may contact me by phone, email, or visiting the school.

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CCSD Vision Statement: The Chillicothe City School District will provide tomorrow's leaders with a high quality education by developing high expectations and positive personal relationships among students, staff, and community members.

CCSD Mission Statement: The Chillicothe City School District empowers students to learn, to lead, and to serve.

Course Description and Prerequisite(s) from Course Handbook:

Algebra I –260

Algebra I taken at 8th grade level -254

State Course #:110301

Prerequisite: None

Required Option Grade: 9

Graded Conventionally Credit: 1

Course Description:

A study of algebraic concepts and processes to represent and solve problems that involve variable quantities. Includes using and relating graphical and symbolic representations and techniques. The fundamental purpose of this course is to formalize and extend the mathematics that students learned in the middle grades. Because it is built on the middle grades standards, this is a more ambitious version of Algebra I than has generally been offered. The critical areas, called units, deepen and extend understanding of linear, quadratic and exponential relationships by contrasting them with each other and by learning how to apply these functions to real world phenomena. The Mathematical Practice Standards apply throughout each course and, together with the content standards, prescribe that students experience mathematics as a coherent, useful, and logical subject that makes use of their ability to make sense of problem situations. Successful completion of this course is needed to take Chemistry.

Learning Targets: Defined below for clarity are the Unit Titles, Big Ideas of every Unit taught during this course, and the Essential Questions to be answered to better understand the Big Ideas. A student's ability to grasp and answer the Essential Questions will define whether or not he or she adequately learns and can apply the skills found in Big Ideas. This will ultimately define whether or not a student scores well on assessments administered for this course. Standards used for this course will be taken from the Extended Standards and may be a review of those presented in

previous courses to assure mastery of skills for students with disabilities. Extended Standards may be found at http://education.ohio.gov/getattachment/Topics/Special-Education/Ohios-Learning-Standards-Extended/MathExtStrdsFinal_2_05_19.pdf.aspx?lang=en-US

- **1st Quarter**
 - **Unit I Title: Seeing Structure in Expressions**
 - **Big Idea #1:** I can see structure in expressions.
 - *Essential Question #1: Can I represent a real world situation with a numeric expression or concrete objects?*
 - *Essential Question #2: Can I represent a real world situation with an expression using both numerals and variables?*
 - **Big Idea #2:** I can write an expression.
 - *Essential Question #1: Can I identify the equivalent numeric expression?*
 - *Essential Question #2: Can I simplify expressions involving variables?*
 - **Unit II Title: Write Expressions in Equivalent Forms to Solve Problems**
 - **Big Idea #1:** I can write expressions in equivalent forms to solve problems.
 - *Essential Question #1: Can I interpret numerical expressions with exponents?*
 - *Essential Question #2: Can I apply properties of integer exponents to generate equivalent numerical expressions?*
 - *Essential Question #3: Can I apply properties of integer exponents to generate equivalent variable expressions?*
- **2nd Quarter**
 - **Unit III Title: Performing Arithmetic Operations on Polynomials**
 - **Big Idea #1:** I can perform arithmetic operations on polynomials.
 - *Essential Question #1: Can I add linear polynomials?*
 - *Essential Question #2: Can I subtract linear polynomials?*
 - *Essential Question #3: Can I add and subtract linear and/or quadratic polynomials?*
 - **Unit IV Title: Zeros and Factors of Polynomials, and Radical Expressions**
 - **Big Idea #1:** I can multiply binomials.
 - *Essential Question #1: Can I identify different types of polynomials?*
 - *Essential Question #2: Can I multiply a variable by a binomial?*
 - *Essential Question #3: Can I multiply two binomials?*
 - **Big Idea #2:** I can identify the zeros of a polynomial.
 - *Essential Question #1: Can I identify a polynomial?*
 - *Essential Question #2: Can I find the zeros of a polynomial when the polynomial is factored?*
 - **Big Idea #3:** I can rewrite rational expressions.
 - *Essential Question #1: Can I match equivalent expressions?*
 - *Essential Question #2: Can I rewrite expressions in different forms?*
 - *Essential Question #3: Can I identify a rational expression?*

- **MID-TERM EXAM**
- **3rd Quarter**
 - **Unit V Title: Creating Equations**
 - **Big Idea #1:** I can create equations and inequalities in one variable.
 - *Essential Question #1: Can I represent a real-world problem with a linear equation, using concrete objects, models, and pictures?*
 - *Essential Question #2: Can I represent and solve a real world problem with a one-step linear equation or inequality?*
 - *Essential Question #3: Can I represent and solve a real-world situation with a two-step linear equation or inequality?*
 - **Big Idea #2:** I can create equations in two or more variables.
 - *Essential Question #1: Can I identify the meaning of each number and/or variable in a given two-variable equation that describes a real-world situation?*
 - *Essential Question #2: Can I, using a two-variable equation describing a real-world situation, given the value of one variable, find and interpret the value of the other variable?*
 - *Essential Question #3: Can I create an equation with two variables to represent a linear relationship between quantities in a given context?*
 - **Big Idea #3:** I can represent constraints by equations or inequalities.
 - *Essential Question #1: Can I create a one variable constraint using an inequality?*
 - *Essential Question #2: Can I represent a constraint with an equation or inequality in two variables?*
 - **Big Idea #4:** I can rearrange formulas to highlight a quantity of interest.
 - *Essential Question #1: Can I rearrange a one step equation to solve for a variable?*
 - *Essential Question #2: Can I rearrange a one step formula to highlight a quantity?*
 - **Unit VI Title: Understand Solving Equations as a Process**
 - **Big Idea #1:** I can solve equations with one variable.
 - *Essential Question #1: Can I identify the possible solutions(s) for a linear equation or inequality?*
 - *Essential Question #2: Can I solve one step linear equations?*
 - *Essential Question #3: Can I solve two step linear equations?*
 - *Essential Question #4: Can I solve multi-step linear equations?*
 - **Big Idea #2:** I can identify or create equivalent expressions.
 - *Essential Question #1: Can I identify equivalent expressions that are squared?*
 - *Essential Question #2: Can I identify equivalent expressions that are cubed?*
 - *Essential Question #3: Can I identify or create perfect squares?*

- **4th Quarter**
 - **Unit VII Title: Solve Systems of Equations**
 - **Big Idea #1:** I can solve systems of equations.
 - *Essential Question #1: Can I identify whether two lines intersect?*
 - *Essential Question #2: Can I locate the point on the graph at which two lines intersect?*
 - *Essential Question #3: Can I identify the coordinate at which two lines intersect?*
 - **Big Idea #2:** I can identify graphic solution(s) to systems of linear and quadratic equations?
 - *Essential Question #1: Can I identify whether a line intersects a quadratic function?*
 - *Essential Question #2: Can I locate the point(s) on the graph at which a line intersects a quadratic function?*
 - *Essential Question #3: Can I state the coordinates of the point(s) at which a line intersects a quadratic function?*
 - **Unit VIII Title: Represent and Solve Equations and Inequalities Graphically**
 - **Big Idea #1:** I can complete a table of values for a linear equation or inequality.
 - *Essential Question #1: Can I, when given a table of values, graph the line on the coordinate plane?*
 - *Essential Question #2: Can I, when given a graph and an equation, fill out three points on a corresponding table of values?*
 - **Big Idea #2:** I can find the solution to a system of linear equations.
 - *Essential Question #1: Can I locate the coordinate point at which two lines intersect?*
 - *Essential Question #2: Can I locate the coordinate at which two lines intersect by using the x coordinate of the intersection point and substituting it back into the original equation to show that it is a solution?*
 - **Big Idea #3:** I can graph solutions to a linear inequality.
 - *Essential Question #1: Can I graph a linear inequality with a solid or dotted line?*
 - *Essential Question #2: Can I shade the graph a linear inequality?*
 - *Essential Question #3: Can I, when given a graph of a linear inequality, identify three points that make the inequality true?*
- **END OF COURSE EXAM**

Course Materials:

- Google Chromebook
- Earbuds
- Paper
- Pencil

Electronic Resources:

- [Google Classroom](#)
- [Quizlet](#)
- [Kahoot](#)
- [Khan Academy](#)
- [ALEKS](#)
- [IXL](#)

Course Expectations:

- Students **WILL NOT** use cell phones. If caught using the cell phone, the teacher will use the 5 step discipline procedures.
- Students are expected to keep their Chromebook completely closed and earbuds/headphones off their person during instruction.
- Students are expected to have materials every day: Chromebook, paper, notebook, pencil or pen.
- Students will be expected to complete all assignments on time.
- Students will participate in classroom discussion/activities.
- Students will check their individual Progress Book grades regularly.
- No outside food or beverages will be allowed in the classroom.

Grading:

Unit Exams	50%
Assessments (Including: Quizzes, Essays, Labs, and Projects)	30%
Class work/Homework	20%

- Each nine week's grade comprises 20% of a student's final grade.
- The Mid-Term Exam and End of Course Exam each comprise 10% of a student's final grade.

Grading Scale:

The grading scale for Chillicothe High School can be found in the student handbook or online at <http://www.chillicothe.k12.oh.us/1/Content2/studenthandbook>.

Late Work: Late work will be subject to the Board-adopted policy on assignments that are submitted late (to be reviewed in class).

- Regardless of the absence type (excused, unexcused, OSS, etc.), students are expected to make up work and be held accountable for learning all material they missed.
- Any student who is absent from school will receive one (1) additional day for every day he/she missed to make up his/her work for full credit (100%).

- Any student who exceeds the allotted time to turn in an assignment for full credit may still submit work late for partial credit.
 - Any student who turns in work up to 1 week late must at least be given the opportunity to earn 75% on that assignment.
 - Any student who turns in work between 1 and 2 weeks late must at least be given the opportunity to earn 60% on that assignment.
- The end of the 9 weeks is the cut off point for teachers to accept late work from students for full or partial credit unless the teacher decides to give the student an incomplete for the 9 weeks due to extenuating circumstances.

Performance Based Section: Writing Assignments/Exams/Presentations/Technology

One or more of the End of Unit Exams may be Performance Based. According to the Ohio Department of Education, "Performance Based Assessments (PBA) provides authentic ways for students to demonstrate and apply their understanding of the content and skills within the standards. The performance based assessments will provide formative and summative information to inform instructional decision-making and help students move forward on their trajectory of learning." Some examples of Performance Based Assessments include but are not limited to portfolios, experiments, group projects, demonstrations, essays, and presentations.

CHS Algebra I Extended Standards Course Syllabus

After you have reviewed the preceding packet of information with your parent(s) or guardian(s), please sign this sheet and return it to me so that I can verify you understand what I expect out of each and every one of my students.

Student Name (please print): _____

Student Signature: _____

Parent/Guardian Name (please print): _____

Parent/Guardian Signature: _____

Date: _____