**Algebra I**

**Academy for Technology and the Classics**

**Mrs. Gardner**

**Course Overview:**

Welcome to the fascinating world of Algebra I. Math is the universal language, and speaking that language helps prepare you for life in this increasingly global society. Mastering Algebra I is critical to your future progress in mathematics and is fundamental to understanding the sciences, computer technology, economics, business, etc. Algebra problems make up a large portion of items on tests like the SAT and ACT, so even if you aren’t interested in a career in math or science, you still need to know your Algebra. Additionally, math helps you become a more able critical-thinker and problem-solver which will help you throughout your life.

**Course Objectives:**

•    The student will learn to think critically and analytically.
•    The student will achieve mastery in use of algebraic techniques.
•    The student will learn how to apply mathematics to real world applications.
•    The student will gain a greater understanding of algebraic concepts needed for future mathematics work.

**Topics of Study**:

1) Solving Equations and Inequalities, 2) Functions and Linear Functions, 3) Systems of Equations and Inequalities, 4) Exponents and Exponential Functions, 5) Polynomials and Factoring, 6) Quadratic Functions and Equations, 7) Radical Expressions and Equations, 8) Rational Expressions and Functions, and 9) Data Analysis and Probability

**Required Materials:**
•    Pencils and erasers; colored pencils
•    Lined notebook paper and a notebook
•    Graph paper
•    Calculator – any basic 4-function, scientific, or graphing calculator

**Class Expectations:**

* Students are expected to come to class on time every day, prepared to work, with all assignments completed. This means having writing utensils, paper, calculator, completed homework, and a positive attitude.
* Students will be required to keep a neatly organized notebook. This notebook will be graded at least quarterly. Being organized and taking responsibility for your own work is an important life skill. Required notebook sections are as follows: Notes, Homework, Tests/Quizzes.
* Work must be your own. You have so many valuable things to learn and say. Do not copy the work of others. This will not be tolerated.
* Our one class behavior rule is to **be kind**.

**Homework Policy:**

We will follow ATC’s homework policy. Homework is due when assigned. Math homework is due on Tuesdays and Thursdays. Late work will be worth 60% of the grade earned. Students will have one opportunity to attend an ER tutorial and turn in the work by the Monday of the following week late for the 60% of the grade earned. Work not turned in after that receives a hard zero. Students will have the same number of days absent to make-up work for each excused absence (e.g. A student who is excused absent two days will have two days to make up work missed). Work missed due to unexcused absence follows the late-work policy. Homework is due at the beginning of class. Homework should be in pencil only.  Show all your work – every step!!  Don’t just copy down answers – you won’t receive credit for it.  Also, you need to copy the problem out of the book unless it is a word problem that is longer than 1 sentence.  Circle, box or highlight your answers.

**Grading:**

We will use a standard grading scale of 90%-100% = A; 80%-89% = B; 70% - 79% = C; 60% - 69% = D; and 59% and lower = F. There is no grade weighting.