GSE Algebra I

Morrow High School
2299 Old Rex Morrow Road, Morrow, GA 30260
(770) 473-3241 main office, (770) 473-3244 fax

Teacher: Ms. Nguyen

Room Number: # 27

Textbooks: Algebra 1 Common Core
& enVision Algebra 1

Textbook website: www.pearsonrealize.com

Email: mai.nguyen@clayton.k12.ga.us

Phone Number: (678)967-8818 (Call between 4 pm & 8 pm)

Tutorial Hours: *3:20-3:50 PM Tuesday & By Appointment*

Tutorial Location: Room # 27

Department Philosophy: Believing that every student is capable of learning mathematics, opportunities are provided for all students to strive toward their maximum potential and to increase their confidence in themselves and in their own abilities. Teachers and parents work together in helping students to appreciate mathematics, to grow more proficient mathematically, and to realize that mathematical skills are stepping stones to success. Mathematics instruction must continue to grow to meet the changing demands of our society. Literacy in Mathematics requires understandings and habits of mind that enables citizens to make sense of our world, to think critically and independently, to recognize and weigh alternative explanations, and to deal reasonably with problems that involve numbers, patterns, and logical arguments.

Algebra I is the first course in a sequence of three required high school courses designed to ensure career and college readiness. The course represents a discrete study of algebra with correlated statistics applications.

The standards in the three-course high school sequence specify the mathematics that all students should study in order to be college and career ready. Additional mathematics content is provided in fourth credit courses and advanced courses including pre-calculus, calculus, advanced statistics, discrete mathematics, and mathematics of finance courses. High school course content standards are listed by conceptual categories including Number and Quantity, Algebra, Functions, Geometry, and Statistics and Probability. Conceptual categories portray a coherent view of high school mathematics content; a student's work with functions, for example, crosses a number of traditional course boundaries, potentially up through and including calculus. Standards for Mathematical Practice provide the foundation for instruction and assessment.

Course Description:

Unit 1: As in Algebra 1, students will interpret the structure of expressions and solve problems related to unit analysis**.** The properties of rational and irrational numbers and operations with polynomials have been added as a preparation for working with quadratic functions later in the course. This content will provide a solid foundation for all subsequent units.

Unit 2: Students will analyze linear functions only. Students will (1) investigate key features of graphs; (2) create, solve, and model graphically linear equations and inequalities in one and two variables; (3) create, solve, and model graphically systems of linear equations and inequalities in two variables; (4) rearrange formulas to highlight a quantity of interest (5) recognize arithmetic sequences as linear functions. Some standards will be repeated in units 3, 4, and 5 as they apply to quadratics and exponentials. (Recall that many of the standards are extensions of middle school standards.)

Unit 3: Students will analyze quadratic functions only. Students will (1) investigate key features of graphs; (2) solve quadratic equations by taking square roots, factoring ($x^2 + bx + c$ AND $ax^2 + bx + c$), completing the square, and using the quadratic formula; (3) compare and contrast graphs in standard, vertex, and intercept forms. Students will only work with real number solutions.

Unit 4: Students will analyze exponential functions only. Students will (1) investigate key features of graphs; (2) create, solve, and model graphically exponential equations; (3) recognize geometric sequences as exponential functions.

Unit 5: Students will compare and contrast linear, quadratic, and exponential functions in this unit.
Unit 6: Students will summarize, represent, and interpret data on a single count or measurement variable. Students will summarize, represent, and interpret data on two categorical and quantitative variables. Students will interpret linear models.

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.

Course Prerequisites:

Course Outline:

Unit 1	**Relationships Between Quantities and Expressions**	**Unit 4**	**Modeling and Analyzing Exponential Functions**
Unit 2	**Reasoning with Linear Equations and Inequalities**	**Unit 5**	**Comparing and Contrasting Functions**
Unit 3	**Modeling and Analyzing Quadratic Functions**	**Unit 6**	**Describing Data**

* The teacher reserves the right to alter or change any part of this course syllabus to better suit the need of the students.

Required Materials/Supplies:
2 Notebooks (composition or spiral), Pencils, Colored pens

Calculator Recommendations:
A classroom set of calculators will be available but it is extremely beneficial for students to purchase and maintain their own calculator for use while completing homework. Below is a list of recommended calculators that are all approved for use during the Georgia Milestone End of Course Tests as well as the ACT and SAT.
- **TI-36X Pro Scientific Calculator**
- **TI-30Xs Multiview Scientific Calculator**
- **TI-84 Graphing Calculator**

Course Evaluation Categories / Grading System:
25%   Classwork
20%   EOCT / Final **(This course has a state mandated Georgia Milestone End of Course Test)**
20%   Tests
15%   Homework
10%   Projects
10%   Quizzes

A: 100% - 90%   **B**: 89% - 80%   **C**: 79% - 71%   **D**: 70%   **F**: 69% and below

Behavior Expectations:
1. **Be Punctual** - for being early is on time, being on time is late and being late is unacceptable
2. **Be Polite** - for everyone you meet is fighting a hard battle.
3. **Be Prepared** - for it prevents poor performance.
4. **Be Productive** - for successful people make wise decisions.

School Rules: Make sure you are following dress code. There is **absolutely no eating or cell phone use allowed** in the classroom unless specified by the teacher.

Tardy Policy
1st Offense: Warning   2nd Offense: Student Conference   3rd Offense: Parent Contact
4th Offense: Teacher Detention   5th Offense: Parent Conference   6th Offense: Office Referral

Detention Policy
Detention will be held from **3:20 – 3:50 PM** in Room **27** on the assigned date(s). You should arrive promptly and have work to complete. You will not be allowed to use an electronic device during detention. Failure to report to detention will result in a referral to an administrator. If you have a conflict with the dates assigned, please see the instructor **prior** to your assigned date(s).

Late Assignments
Each student is expected to complete all assignments in the allotted time. **Ten points** will be taken off each day if assignment are turned in late.

Make-Up Work
IT IS THE STUDENT'S AND PARENTS RESPONSIBILITY TO OBTAIN AND COMPLETE MAKE-UP WORK WITHIN 3 DAYS OF THE STUDENT'S RETURN TO SCHOOL. Make-up work must be done after or before school, *NOT* during valuable class time. Students should arrange alternate times with the teacher for making up work for the mutual convenience of student and teacher.

Progress Reports/Report Cards
Progress Reports are issued at the 4 ½ week and13 ½ week marks of each semester. At the 9 week and the end of the semester, report cards are issued which will show the permanent grade earned for each course.

Acknowledgment of Receipt: By signing below, the student and parent/guardian acknowledge that they have read and understood the contents in the 2021-2022 GSE Algebra I course syllabus posted on Ms. Nguyen's website (https://003.clayton.k12.ga.us/teacher_sites/mathematics/Nguyen) and Google Classroom/Canvas.

Please fill out and return to Ms. Nguyen no later than Friday, August 11th for a homework grade.

Student Name (Print)_____ Class Period_____

Student Signature_____ Date_____

Parent/Guardian Name (Print)_____

Parent/Guardian Signature_____ Date_____

Parent/Guardian Email_____

Parent/Guardian Contact #_____ Alternate # _____

How would you prefer to be contacted? _____

Does the student have access to an electronic device and internet to complete online assignments at home?

YES_____   **NO**_____

Additional Comments:

Thank you for partnering with us to make this a productive and successful school year.