



## Algebraic Reasoning

Garrett Apa  
gapa@ems-isd.net

**Conference Period:** 11:50 – 12:40

**Tutoring Opportunities:** during student lunch period by appointment Class

### Materials:

- Binder, folder, or notebook
- Pen or pencil, pencil preferred
- A class set of graphing calculators will be provided. Calculators will NOT be available for checkout.
- If your student needs extra practice or support for home, please contact his/her teacher for use of a textbook. Access to Canvas and Office365 tools is available to students through our [Single Sign-on Portal \(SSO\)](#). Students receive their SSO login during enrollment.

### Course Description:

Algebraic Reasoning continues the development of mathematical reasoning related to algebraic understandings and processes and deepens the foundation for studies in subsequent math courses. Students will build on knowledge and skills for mathematics through Algebra I. Algebraic Reasoning involves preparation for success in Algebra II as the basic for all units is the study of linear, quadratic, square root, rational, cubic, cube root, exponential, absolute value and logarithmic functions. This course is for those students that have not completed Algebra II nor have they chosen a path to AP or dual-credit coursework in high school.

### Course Goals:

Students who complete this course successfully will be able to:

- Solve all operations with real numbers, write and graph linear functions, and identify terms of sequences.
- Determine the characteristics of parent functions and their transformations.
- Simplify and factor polynomials.
- Determine the characteristics of quadratic and exponential functions with respect to their graphs.
- Determine the inverse of a function and whether a function is an inverse of another function.
- Solve systems of linear equations using matrices and technology.

### Student Evaluation:

The grading system for this course is as follows:

- Grade averaged 60% Major 40% Minor
- Major grades – tests (including District Common Assessments, six weeks assessments, projects, final essays, research papers, presentations); minimum three per six weeks
- Minor grades – quizzes, daily assignments, journals; minimum four per six weeks
- Semester exams will count 1/7 of the semester grade
- A letter system (S, N, U) is used to report a student's conduct based on proper/responsive conduct and citizenship
- Per Board Policy EIA (LOCAL), "The District shall permit a student who meets the criteria detailed in the grading guidelines a reasonable opportunity to redo an assignment or retake a test for which the student received a **failing** grade. This policy applies only to initial identified major grades and does not apply to daily assignments,

quizzes, six-week test, and semester final examinations. Upon reteach and retest, the new test, project, etc. recorded will be a high score of 70%.

**Assignments, exams, expectations outside of the classroom:**

Homework/Assignments will be assigned as needed. Students are expected to complete their work to the best of their ability and seek help as needed.

**Attendance/Tardy Policy/Make-Up Work:**

Regular school attendance is essential for a student to make the most of his or her education—to benefit from teacherled and school activities, to build each day’s learning on the previous day’s, and to grow as an individual. Absences from class may result in serious disruption of a student’s mastery of the instructional materials; therefore, the student and parent should make every effort to avoid unnecessary absences.

Make-up work is the responsibility of the student who has an absence. The student must check with the teacher regarding make-up work on the day he/she returns to class. Students shall have equal time to days absent from class plus one day to complete all missed assignments.

**Classroom Expectations:**

- Be on time, on task, and prepared to learn everyday
- Electronics will be used for Academic Reasons only
- Be responsible for you own learning
- Respect the teacher, the classroom, and other students
- Trash goes in the trashcan

**Preliminary Schedule of Topics, Readings, and Assignments**

1. Real numbers
2. Equations, inequalities, and problem solving
3. Graphing
4. Solving systems of linear equations
5. Exponents and polynomials
6. Factoring polynomials
7. Rational expressions
8. Quadratic equations and functions
9. Exponential and logarithmic functions
10. Sequences and series

**Academic Integrity:**

Academic integrity values the work of individuals regardless if it is another student’s work, a researcher, or author. The pursuit of learning requires each student to be responsible for his or her academic work. Academic dishonesty is not tolerated in our schools. Academic dishonesty, includes cheating, copying the work of another student, plagiarism, and unauthorized communication between students during an examination. The determination that a student has engaged in academic dishonesty shall be based on the judgment of the classroom teacher or other supervising professional employee and considers written materials, observation, or information from students. Students found to have engaged in academic dishonesty shall be subject to disciplinary and/or academic penalties. The teacher and campus administrator shall jointly determine such action.

