



I. Teacher Information

Teacher Names: Mr. Sorrels and Mrs. Marcus Room: 1279
Tutorial Days: Tuesday & Wednesday, or by appt. Class Site: <https://sites.google.com/a/apsk12.org/sorrels/>
Teacher E-mail: matthew.sorrels@apsk12.org, School Site: <http://www.atlanta.k12.ga.us/Domain/3508>
mmarcus@atlanta.k12.ga.us School Phone #: 404-913-5002

II. Course Description and Objectives

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.

III. Materials and Supplies

Campus Portal for Parents and Guardians: Visit <https://ic.apsk12.org/portal> to view class schedules, attendance records and grades. To activate your account, visit the school to receive your login (activation key).

Required Materials:

- 1" 3-ring binder
 - 5 pocket tabs, labeled: Homework, Notes, In-class work/ALEKS, Exit Tickets, and Data/Assessments
- At least 100 sheets of loose leaf paper
- At least 2 sharp (or full if mechanical) #2 Pencils **every day**
- Scientific Calculator



IV. Course Outline/Curriculum Overview

The following academic concepts will be covered. THIS IS ONLY A GUIDE AND IS SUBJECT TO CHANGE.

Unit 1: In this unit, students solve problems related to unit analysis and interpret the structure of expressions. This unit develops the structural similarities between the system of polynomials and the system of integers. Students draw on analogies between polynomial arithmetic and base-ten computation, focusing on properties of operations, particularly the distributive property. Students connect multiplication of polynomials with multiplication of multi-digit integers. In this unit, students also use and explain properties of rational and irrational numbers and rewrite (simplify) radical expressions. The current unit expands students' prior knowledge of radicals, differences between rational and irrational numbers, and rational approximations of irrational numbers. The properties of rational and irrational numbers and operations with polynomials have been included as a preparation for working with quadratic functions later in the course. This content will provide a solid foundation for all subsequent units.

Unit 2a: Building on standards from middle school, students in this unit students will (1) create, solve, and model graphically linear equations in two variables; (2) rearrange formulas to highlight a quantity of interest; (3) create, solve, and model graphically systems of linear equations in two variables; (4) create and interpret systems of inequalities where applicable; for example, students will create a system to define the domain of a particular situation, such as a situation limited to the first quadrant; the focus is not on solving systems of inequalities.

Unit 2b: Building on standards from middle school, students in this unit students will (1) create, solve, and model graphically linear functions (2) recognize arithmetic sequences as linear functions. (3) Analyze functions using different representations.

Unit 3: Students will analyze exponential equations and 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 4a: Students will analyze quadratic equations. Students will (1) add, subtract, and multiply polynomials 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 4b: Students will analyze quadratic functions only. Students will (1) investigate characteristics of functions; (2) transform quadratics functions; (3) interpret and evaluate functions; (4) investigate key features of graphs. Students will only work with real number solutions.

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.

V. Grading Policy:

Formative Pre-Assessment	0%	Pre-Test/Diagnostic Test/Pre-SLO
Assessment During Learning	25%	Performance-based Assessments/Quizzes
Group/Independent Practice (In Class)	40%	Classwork/Projects/Labs/Group work
Homework	5%	Homework
Summative Assessment	30%	Culminating Projects/Unit Tests/Final Exam/Post-SLO

Grading scale A: 90-100 B: 80-89 C: 70-79 F: 0-69

Grading Systems-Grading Expectations [See Board Policy IHA-R (1)]

2.1. Students shall receive report cards after the end of the 9th, 18th, 27th and 36th weeks of the school year. The report cards received after the semester midpoints (9th and 27th weeks) will be considered progress reports for all students.

2.3. For grades 6-12, evaluation of student mastery shall be cumulative for the semester.

2.4. All students shall receive interim progress reports at least four (4) times per year—4.5 weeks into the school year and midway between report card issuance dates.

VII. Assessment Calendar

Unit/Benchmark Assessments

TBD

Final Exam (December/May)

TBD

GA Milestone/SLOs: May 2017

Exact dates TBD

VIII. Expectations, Goals, Rules, Procedures, etc.

Expectations:

1. Be a fearless learner
 - a. Come into class with a Growth Mindset
2. 3 F's: full respect, full participation, full support
3. **All** students feel comfortable and safe

Goals (measurables):

1. Milestone benchmark (100% meet/exceed 80%+ on GA milestone assessment)
2. 100% of students are at a 3 or higher in **all** sections of the fearless learner rubric

Rules:

1. Follow instructions the first time they are given
2. Phones away and off
3. Students will raise their hand before speaking and wait to be called upon, unless the situation warrants otherwise
4. No food unless earned through points system
5. No inappropriate language.

Consequence Hierarchy:

1. Verbal Warning
2. Reflection Sheet
3. Separated Seating for remainder of class
4. Sent to another teacher's classroom

Points System (LiveSchool):

Specific Categories/Point values are still TBD and will be updated on the course website by 9:00 PM on 8/7/16

Rewards.

- Healthy snacks
- Fearless student of the week
- Rewards for top 3 point-earning students from each class at end of each month
- Others TBD/Student decided

Procedures:

- Entering the Classroom

- **Start-of-class Housekeeping:** Upon entering the classroom, mathematicians will silently pick up any papers on the entry table and turn in any homework in the homework tray and any missed class/late work in the missed class/late work tray. They will then silently walk to their mailbox, retrieve their binder and anything else in their mailbox, and go to their assigned seat. **If a test or quiz is in your mailbox, put it directly into your binder and do not look at it until 1) instructed by Mr. Sorrels or Mrs. Marcus or 2) the bell rings at the end of class.**
 - **Preparation Checks:** Mathematicians are expected to come to class with **at least** two sharp pencils (or two full mechanical pencils), plenty of loose leaf paper in their binder (at least 20 blank sheets every day), a properly organized binder, and a scientific calculator. Mr. Sorrels and Mrs. Marcus will be performing frequent (possibly daily) binder checks to ensure that students have all materials they need. These binder checks will be graded on an **all-or-nothing** basis; if anything is absent during a mathematician's binder check, they will receive a score of **zero** for their binder check that day, no excuses, no questions asked. This will factor into the classwork portion of their grade (weighted **40%**). If a student does not have any pencils, they will be required to sign one out from the Pencil Rental at the entry table.
 - **Missed Class/work:** Mr. Sorrels will have a missed work station at his desk, where all mathematicians can pick up any assignments or worksheets that they were not present for. From the day they receive the missed work, mathematicians who miss class will have the same number of days to complete missed work as their peers were given. Any missed in-class work is due **the day after you return to class**. Any missed in-class assessments (tests, quizzes, etc.) will be made up at a time of mutual convenience for both the student and either Mr. Sorrels or Mrs. Marcus **within a timeframe equal to either 1) the number of consecutive days of missed class or 2) within two school days if the student missed fewer than 2 days of class.**
- **Do Now:** Once mathematicians are in their seat, they will begin working on the Do Now displayed on the Promethean Board. Students will have until **10 minutes** after the start of the period to complete their housekeeping and the Do Now. If a student has finished the Do Now before 10 minutes after the start of class, they will (in order) 1) Double-check their work so they are ready to present if they are called upon. 2) Ensure that they are ready for their preparedness check, 3) begin working on anything else outstanding, and 4) sit silently and wait for the timer to go off. At 10 minutes after the start of the period, the timer will go off, and all mathematicians will stop working and pass their Do Nows to the left. Mr. Sorrels/Mrs. Marcus will then collect the Do Nows (in-class assessment grades weighted 40%) and pick names out of a cup to present each problem on the board (We'll give those students their Do Nows back for reference).
- **During class**
 - **Instruction:** During instruction, mathematicians are expected to be silent. Unless explicitly stated otherwise, they will silently raise their hands and make eye contact with Mr. Sorrels or Mrs. Marcus to show that they need guidance and/or support or wish to contribute.
 - **Whiteboards:** On class days where whiteboards are used, mathematicians are expected to keep their whiteboard in the tray under their chair when they are not using them for class-related activities.
 - **Sharpening Pencils:** As stated previously, students are expected to come to class with two sharp or filled pencils. During instructional time or independent work, students are not permitted to sharpen their pencils. If a student does not have a sharp pencil, they must sign out a pencil from the pencil rental.

- **Blowing Nose:** If a mathematician needs to blow their nose, they must raise their hand and will either be allowed to blow their nose or told to wait until the next transition to do so, depending on the length of the class segment in progress.
- **Bathroom:** There may be **no more than 2** mathematicians in the bathroom at any given time. There may be **no students** in the bathroom during the first 15 minutes and last 15 minutes of class.
- **Transitions:** Mathematicians will wait for MVP instruction, and will move when given a cue. Unless explicitly instructed otherwise (forming groups themselves, e.g.), mathematicians are expected to transition silently.
- **Voice Levels:**
 - Independent/Instruction: Silent
 - Group/Guided: Silent or 12-inch voice
 - Pair: 12-inch voice
 - Maximum: reasonable indoor speaking volume, never yelling (for review activities like Jeopardy, louder group work, etc.)
- **Support Days:** Mathematicians are expected to be working on ALEKS or whatever activity they are assigned to do. If a student needs help with a concept or problem, they will silently raise their hand and wait for Mr. Sorrels to come over and help.
- **Exiting the Classroom**
 - **When the bell rings:** Clean up the area around your desk. Pack your things, except for your exit ticket, sit silently at your desk, and wait for Mr. Sorrels or Mrs. Marcus to give the cue to leave. We will say something to each of you as you exit.

IX. Miscellaneous/other info

Deficiency Notices and Progress Reports

The student will periodically receive from the teacher GRADE PROGRESS reports and DEFICIENCY NOTICES. You should review with your parent(s) or guardian(s) **AND** they must sign and return both the GRADE PROGRESS REPORT and DEFICIENCY NOTICE on or before the assigned due date.

Expectations for Technology:

There may be times when the teacher will ask you to utilize your own technology during a class. This technology can include a smart phone, laptop, or tablet. When personal technology is not required by the teacher, the electronic device should be OFF and AWAY.

Academic Integrity

The Atlanta Board of Education recognizes that academic integrity is the foundation of academic excellence and student success. It is the responsibility of every student and employee to exhibit honesty, trust, fairness, respect, and responsibility in academic work at all times to support a positive learning environment in the school. Violations of board policy JFA Academic Integrity shall be handled as violations of the student code of conduct and addressed via the progressive discipline guidelines in the Student Handbook.

Parent Expectations

Parental communication and involvement is essential to the success of all students. We fully welcome your involvement. Parents are encouraged to contact the teacher for updates and concerns. We will be reaching out to parents by phone throughout the first few weeks of school. If a parent requests a conference, one will be scheduled as soon as possible.