Sample AACPS Syllabus—including all Non-Negotiable Elements

Algebra I
Semester A

Mrs. Jackson
Room 201A
msjackson@aacps.org
Reteaching/Reassessment: Tuesdays 2:15 – 3:00

Course Overview:
This high school graduation requirement course serves as the gateway for advanced mathematical courses by providing a complete foundation of the topics in exponential equations, data analysis and modeling, quadratic functions and equations, and critical analysis and understanding of functions in comparison to linear functions. Instructional emphasis is placed on connecting the multiple representations of functions and interpreting the representations through applications. Graphing calculator is required. Students will actively engage in hands-on project based learning experiences throughout the course.

What the Teacher Will Do to Support the Student:
- Create engaging and rigorous learning activities that help students build his/her understanding of algebra and mathematical practices.
- Chunk assignments into manageable amounts and include time in class to debrief and review work.
- Provide additional support for assignments and assessments, including reteaching so that students meet course standards. For 1st semester this will be on Tuesdays from 2:15 – 3:00.
- Notify parents via email or phone at any point during the marking period if a student is in danger of failing or dropping 2 or more letter grades.

What the Student Will Do to be Successful:
- Come to class with required supplies and ready to be an active participant in the learning process.
- Complete all assignments as required.
- Review and synthesize classroom notes, activities, and assignments frequently to help prepare for upcoming assessments and to internalize learning.
- Take advantage of opportunities for additional help. Students should attend these sessions with specific questions so that the teacher can most effectively help the student.

What Parents Can Do to Support the Student:
- Ensure that the student has supplies and that they complete homework and study for tests.
- Encourage the student to seek additional help when it is needed.
- Check Parent Connect regularly to monitor student grades.
- Contact teacher with any questions about assignments, grade, or other issues in a timely manner.

Textbook and Supplies:
Pearson Mathematics: Algebra 1

Students are encouraged to protect their textbooks with appropriate covers. Students are responsible for the care of the textbook. Damaged or lost property will be reimbursed by the student to school at the replacement cost.

Students are also required to have a graphing calculator, pencil, and paper every day.
Course Content and Standards:
Below are the major standards for Algebra I. To read the standards in-depth, please visit www.mdk12.org.

<table>
<thead>
<tr>
<th>1st Quarter:</th>
<th>2nd Quarter:</th>
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<tbody>
<tr>
<td><strong>Unit I:</strong> Relationships between Quantities and Reasoning with Equations</td>
<td><strong>Unit III: Exponential Relationships and Modeling</strong></td>
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<tr>
<td>- Reason quantitatively and use units to solve problems.</td>
<td>- Construct and compare linear and exponential models and solve problems.</td>
</tr>
<tr>
<td>- Interpret the structure of expressions.</td>
<td>- Construct and compare linear, quadratic, and exponential models and solve problems.</td>
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<tr>
<td>- Create equations that describe numbers or relationships.</td>
<td>- Summarize, represent, and interpret data on two categorical and quantitative variables</td>
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<tr>
<td>- Understand solving equations as a process of reasoning and explain the reasoning.</td>
<td>- Analyze functions using different representations.</td>
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<tr>
<td>- Solve equations and inequalities in one variable.</td>
<td>- Build a function that models a relationship between two quantities.</td>
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<tr>
<td>- Build new functions from existing functions.</td>
<td>- Interpret expressions for functions in terms of the situation they model.</td>
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<tr>
<th><strong>Unit II:</strong> Linear Functions</th>
<th><strong>Unit IV: Polynomial Expressions</strong></th>
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<tbody>
<tr>
<td>- Solve systems of equations.</td>
<td>- Interpret the structure of expressions.</td>
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<tr>
<td>- Represent and solve equations and inequalities graphically.</td>
<td>- Understand the relationship between zeros and factors of polynomials.</td>
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<tr>
<td>- Understand the concept of a function and use function notation.</td>
<td>- Write expressions in equivalent forms to solve problems.</td>
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<tr>
<td>- Interpret functions that arise in applications in terms of a context.</td>
<td>- Perform arithmetic operations on polynomials.</td>
</tr>
<tr>
<td>- Analyze functions using different representations.</td>
<td>- Create equations that describe numbers or relationships.</td>
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<tr>
<td>- Build a function that models a relationship between two quantities.</td>
<td>- Solve equations and inequalities in one variable.</td>
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Standards of Mathematical Practices:
In addition to content standards, we will focus on the standards of mathematical practices. These practices provide a foundation for lifelong approaches to solving problems.
1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.
Course Grading:
Your grade in this course will be determined based upon your progress towards mastery of the standards. Specifically, your grade will be calculated using the following weighted categories.

- 50% Summative Unit Assessments and Projects
- 30% Classroom Assignments and Quizzes
- 10% Quarterly Assessment (may not be redone)
- 10% Homework (may not be redone)

Assignment Descriptions:
1. Summative Unit Assessments and Projects – there will be at least one unit assessment or project per unit.
2. Classroom Assignments and Quizzes – there will be at least one graded classwork assignment every two weeks. When an assignment is completed as part of collaborative work, each student will receive his/her own grade based upon his/her individual work.
3. Quarterly Assessment – there will be one quarterly assessment per quarter. Quarterly assessments measure student mastery of the major standards for the quarter and course. These assessments may not be redone.
4. Homework – there will be at least one graded homework assignment per week. Homework serves as opportunities to promote the attainment of positive work habits and study skills, practice material and skills previously taught so learners can continue to practice mastery of content, prepare for upcoming lessons by reviewing prerequisite content/skills, study for upcoming assessments, and/or extend student understanding of concepts.

Opportunity for Mastery (Redo):
Per AACPS regulation, students may redo [teacher will insert either three, four, or five] assessments and/or assignments each quarter. Students are encouraged, but not required, to participate in teacher-led reteaching. All redo items must be completed within ten days of receiving the original grade and may only be redone one time. The higher of the two grades will be used for calculating the student’s quarter grade. The teacher may choose to have the student redo all of an assessment or assignment or may have student only redo specific items or parts of the work. Students may not redo homework, the quarterly assessment, or a large project. However, students may redo parts of a large project, if graded separately by the teacher, with each part counting as a separate redo. Assessments or assignments due in the last week of the quarter are not eligible.

Late Work and Incomplete Assignments:
Students are expected to submit assignments on the date that they are due. Students are expected to complete assignments, in full, to the best of his/her ability and students should take advantage of tutoring and reteaching opportunities so that the student can submit his/her best work. Late assignments are penalized 10% for each day it is late up until five school days (not A/B days). After five school days, the assignment becomes a zero and may not be submitted for a grade.

Teachers shall assign a minimum grade of 50% to assignments or assessments for which the student made a good faith effort, as determined by the teacher, to meet the basic requirements. If a student does no work on an assignment or assessment, the teacher shall assign a grade of zero.

Commented [PSM4]: This part is at teacher discretion, but teachers need to consider how many grades are in each bucket and the mathematical implications of such

Commented [PSM5]: 5% for grades 6 and 7 courses

Commented [PSM6]: Must describe the types of assessments and the "frequency."

Commented [PSM7]: This will be required in all secondary syllabi.

Commented [PSM8]: Regulation gives students five days to turn in late work but allows teachers to determine the penalty (if any).
When a student is absent, it is the student’s responsibility to get the make-up work. The student will be allotted the same number of days equal to the number of days absent to make-up work.

**Recording of Grades and Communication with Parents:**
Per AACPS regulation, all grades, with the exception of lengthy assignments such as projects and extended writing assignments, will be entered into Parent Connect within one week of assignment submission. Parents can check Parent Connect regularly to monitor student grades.

**Academic Dishonesty:**
A student who exhibits academic dishonesty as determined by the teacher and administrator shall receive a zero on the particular assignment in question. Violations of the Academic Integrity Policy and Regulation may result in disciplinary action. Consequences for violations may vary according to the severity of the violation and shall follow the progressive interventions and discipline as outlined in the Student Code of Conduct.

[Include school based information, including an area for students and parents to sign off.]