Algebra IB Syllabus

Mr. Najee Tolbert

[tolbena@richmond.k12.ga.us](mailto:tolbena@richmond.k12.ga.us)

Parent use only: (762) 233-4894

Hello Parents and Students,

Welcome to our class. my name is Najee Tolbert and I will be your Algebra IB teacher this year. We will have an exciting school year as I teach as we learn and grow together . I believe we all will have a lot of fun this year and I am very excited to meet you all.

Course Description and objectives

Algebra IB is the culminating course in a sequence of three high school courses designed to ensure career and college readiness. It is designed to prepare students for fourth course options relevant to their career pursuits.

Unit 1 (3 – 4 weeks)-Quadratics Revisited

Students will revisit solving quadratic equations in this unit. Students explore relationships between number systems: whole numbers, integers, rational numbers, real numbers, and complex numbers. Students will perform operations with complex numbers and solve quadratic equations with complex solutions.

Unit 2 (3 – 4 weeks)-Operations with Polynomials

This unit develops the structural similarities between the system of polynomials and the system of integers. Students connect multiplication of polynomials with multiplication of multi-digit integers, and division of polynomials with long division of integers. Students will find inverse functions and verify by composition that one function is the inverse of another function.

Unit 3 (4 – 5 weeks)-Polynomial Functions

In this unit, students continue their study of polynomials by identifying zeros and making connections between zeros of a polynomial and solutions of a polynomial equation. Students will see how the Fundamental Theorem of Algebra can be used to determine the number of solutions of a polynomial equation and will find all the roots of those equations. Students will graph polynomial functions and interpret the key characteristics of the function.

Unit 4 (5 – 6 weeks)-Rational & Radical Relationships

Rational numbers extend the arithmetic of integers by allowing division by all numbers except 0. A central theme of this unit is that the arithmetic of rational expressions is governed by the same rules as the arithmetic of rational numbers.

Unit 5 (4 – 5 weeks)-Exponential & Logarithms

Students extend their work with exponential functions to include solving exponential equations with logarithms. They analyze the relationship between these two functions.

Unit 6 (4 – 5 weeks)-Mathematical Modeling

In this unit students synthesize and generalize what they have learned about a variety of function families. They determine whether it is best to model with multiple functions creating a piecewise function. Students will also explore the sum of finite geometric series.

Unit 7 (3 – 4 weeks)-Inferences and Conclusions from Data

In this unit, students see how the visual displays and summary statistics they learned in earlier grades relate to different types of data and to probability distributions. They identify different ways of collecting data— including sample surveys, experiments, and simulations—and the role that randomness and careful design play in the conclusions that can be drawn.

**Assignments and Absences**

Students will receive a variety of assignments designed to enhance their learning. If a student is absent, the student is responsible for the missed assignment. Students who have an excused absence will be allowed five days to turn in the missed assignment. No work will be accepted after five days.

Course Assessment Plan/Grading Scale:

This course will include many formative assessments and labs. For this course grades will be assigned as follows:

        Summative Assessments   40%

        Formative Assessments     35%

        Labs/HW/Other                 25%

Supply list

Notebook with pockets Pencils Loose leaf Paper

Tissue Hand sanitizer. Sanitizer wipes

Behavioral expectations:

* 1. Be Ready

A. Come prepared for class when the bell stops ringing.  This means have the materials needed for class, stop talking, and be ready to begin the day’s work.  Materials you will need to bring to class include textbook, notebook, assignments and appropriate writing instruments (pencil). (If the student is not sitting in a desk and working on warm-up when the bell rings, THEY WILL BE MARKED TARDY!)

* 1. Be Responsible

3. Be Respectful

If you choose not meet the above expectations the follow will your consequences:

1. First offense -Warning- teacher and student will have a short conversation about what is expected and why
2. Second offense- parent contact- parent will be notified of the possible next steps if behavior continues
3. Third offense- parent phone call and detention
4. Fourth offense- parent phone call and referral

Rewards

Points or badges are given to students on a daily for meeting expectations. Students will then be given a chance to spend said points on prizes once a week. Prizes are set based off student interest survey given at the beginning of each quarter. ( teacher will have final say in what the prizes are)

**PLEASE SIGN AND UPLOAD TO YOUR PERIODS CANVAS PAGE ASSIGNMENT**

**I have read and understand all that Mr. Tolbert’s Algebra IB syllabus contains.**

**Print Student’s Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Student’s Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**I have read, received, understood, and kept Mr. Tolbert’s Algebra IB syllabus for my records.**

**Print Parent’s/Legal Guardian’s Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Parent’s /Legal Guardian’s Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Preferred Method of contact (Please CIRCLE ALL that APPLY)**

**Email TEXT PHONE**

**Parent preferred email: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Parent Contact Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**