



## ISS Course Syllabus

Teacher: **Mr. Marcus**  
Course Title: **Algebra 1**

Grade: **9**  
HS Credit Value:

### Course Objectives:

Each level listed on the under fold is an integral part of a complete and comprehensive Course in **Algebra 1**.

While each section has a specific theme, the students will continuously review and integrate previously mastered concepts.

This gives the students an opportunity to develop self-confidence while broadening their scope of appreciation for **Algebra 1**.

The Course Sequence is specially structured so that each month has a specific objective. Once these objectives are met and mastered, the students will be able to apply these acquired skills to problem solving in a wide range of applications as it prepare them for **Algebra 2**.

## General Course Contents:

**Throughout this course sequence, the students will learn the following concepts and their applications.**

### **Variables and Numbers**

- . Variables
- . Distributive property
- . Definition of signed numbers
- . Signed numbers operation

### **Solving Equations**

- . Sentences and formulas
- . Properties
- . Solving equations
- . Solving inequalities

### **Problem Analysis**

- . Words and symbols
- . Simple verbal problems
- . Medium verbal problems
- . Challenging verbal problems

### **Polynomials**

- . Addition of polynomials
- . Subtraction of polynomials
- . Multiplication of polynomials
- . Division of polynomials

### **Algebraic Factors**

- . Greatest common factor
- . Binomial factors
- . Complete factorization
- . Word problems

## **Algebraic Fractions**

- . Operations with fractions
- . Solving equations
- . Solving inequalities
- . Solving word problems

## **Radical Expressions**

- . Rational & irrational numbers
- . Operations with radicals
- . Irrational roots
- . Radical equations

## **Graphing**

- . Equations of two variables
- . Graphing lines
- . Graphing inequalities
- . Equations of lines

## **Algebraic Factors**

- . Graphical solution
- . Algebraic solutions
- . Determinants
- . Word problems

## **Review**

- . Solving quadratic equations
- . Equations and inequalities
- . Polynomials factors
- . Radicals and graphing

**Evaluation System:**

- The students will be given formal end of term examinations.
- The students will be informally assessed in the following ways:
  - a. Weekly or by unit, informal teacher generated tests.
  - b. Daily, this includes class work, participation, and behavior.
  - c. Homework assignments

<b>Examination</b>	<b>30%</b>
<b>Graded Class Work</b>	<b>25%</b>
<b>Home work</b>	<b>20%</b>
<b>Participation</b>	<b>15%</b>
<b>Behavior</b>	<b>10%</b>
<b>Total</b>	<b>100%</b>

**Strategies and Instructional Methods**

- Demonstrations
- Direct problem solving
- Note taking
- Review and practice
- Weekly quizzes

**Resources/ Textbooks:**

- **Algebra 1** ; Prentice Hall Mathematics