



ALGEBRA 1 : SY 2017-2018 - COURSE SYLLABUS

INSTRUCTOR: MRS. BARBIE IGLECIAS-SINGA

Email: barbie.singa@cnmipss.org

Course Overview: This course is the foundation of general mathematics to prepare students for future study of geometry, probability, and data analysis. This course will cover all of the basic skills and algebra concepts. Topics of the course will include the properties of real numbers, equations and inequalities, system of equations, operations on polynomial, factoring, functions and their graphs, and problem solving. Students will be able to continue and apply their knowledge to advanced math courses.

School Mission:

The mission of the Marianas High School is to establish, maintain, and sustain a learning environment in which all students have the opportunity to develop the competencies and the confidence necessary to enter and succeed in a post-secondary educational institution or in an employment field of their choice.

Student Learning Outcomes

At the end of this course, students will be able to;

- *Evaluate and write variable expressions using the order of operations.*
- *Perform operations on integers.*
- *Solve equations such as multi-step equations and inequalities using addition, multiplication, and distributive properties.*
- *Solve equations with decimals.*
- *Factor numbers and monomials.*
- *Simplify and compare fractions using least common denominator (LCD).*
- *Write fractions in simplest form.*
- *Identify rational numbers and perform operations with fractions and mixed numbers.*
- *Find ratios and unit rates.*
- *Write and solve proportions.*
- *Identify similar and congruent figures.*
- *Understand and apply basic concepts of probability.*
- *Represent relations and functions (domain and range).*
- *Understand the concept of slope of a line.*
- *Graph and solve systems of linear equations.*
- *Classify triangles and polygons.*
- *Find surface areas and volumes of solids.*
- *Classify and simplify polynomials.*
- *Add, subtract, multiply polynomials using the power of a product, power of a quotient, and power of a power properties.*
- *Representing arithmetic and geometric sequences*

- *Data Analysis and Probability*
- *Find probabilities of dependent and independent events.*
- *Collect, organize, and display data; Use proper statistical methods to analyze data.*

Resources:

- Algebra 1 Textbook by Pearsons
- Algebra 1 Online Textbook by Pearsons
- Algebra 1 Assessment Workbook by Pearsons
- Internet Resources by Pearson Resources, other suggested Internet practice: Kuta Software, Khan Academy, Softschools, Edhelper, and etc.

Required Materials:

- Pencil: eraser, sharpener
- Pen with cap: White out/Correction Tape
- 1 subject notebook

*Filler Paper (Optional)

Class expectations: Students are expected to come to class everyday on time and have all required materials prepared. You will be graded on the following category: Bellwork, Classwork, Homework, Attendance, Note-taking, Class Participation, Tests, Quizzes, Projects, and Final Exam.

Bellwork: Bellwork will be given daily. Must be completed and submitted on the first 5-7 minutes of class every day.

Classwork: Classwork will be given daily. Must be completed and submitted on the day it's due. Classwork should show not only the answer but also work done to obtain it. **No late classwork will be accepted unless arranged with the teacher beforehand.**

Homework: Homework will be assigned for every section covered. It is recommended that it be completed and submitted on the day it's due. Homework should show not only the answer but also work done to obtain it. **No late homework will be accepted without previous arrangement with the teacher.**

Note-taking: Students must use their notebook to take notes daily. Notes will be checked frequently throughout the term.

Class participation: Each lecture will be open discussion. Students will be assigned on group work activities and board activities. Please ask questions as soon as you have them.

Quizzes/Tests: There will be weekly quizzes after each section covered. Students can have a make-up quiz unless accompanied by an excused note, otherwise, no make-up.

Projects: There will be projects given for each quarter. Projects must be turned in on the deadline. Late projects will not be accepted.

Extra credit: Students must be present to earn extra credit opportunity. If students are late or absent, there will be no make-up.

Late assignments/Make-up: Any make-up or late assignments must be accompanied with an excused note. Students will still get points deducted for each assignment.

Tutoring hours: The class will open for the need of extra time or help, but please make an arrangement beforehand.

Special Accommodations:

Students will be given special accommodations provided students cannot complete assignments, projects or exams due to unforeseen circumstances per PSS policies. Students must communicate with the teacher as soon as possible. Students have up to 5 school days to make up assignments unless otherwise arranged beforehand with a valid excuse.

Classroom rules:

Be on time and prepared. You are required to come to class on time prepared and ready to learn. Sit at your assigned seat.

No hats/shades/bandanas/du-rags, etc.

No electronics: cell phones, iPods, laptops, mp3, earphones or any other electronic devices. *Unless being used for instructional purposes, cell phones and any other electronic devices are prohibited in class at any time.*

No uke, skateboards, basketball, soccer ball, volleyball, cube game, fidget spinner, etc.

No chewing betel-nut or gum

No food or drinks (only water bottle)

Water Dispenser is ONLY AVAILABLE towards end of class. 10 Minutes before bell rings. Have your water bottles filled up before coming to class.

No cheating or copying other students work

Raise your hand before speaking.

No imitation of School Bell (Siren).

Clean up your area before leaving class.

Dispose all trash in the trash bin.

Do not leave class without my permission.

No restroom pass: only for emergency use **only** & must provide passport.

Do not stand by the door to wait for the bell. Everyone must be seated before the bell. I dismiss you NOT the bell.

Students are expected to complete all assignments, including homework, by all deadlines. Make-up work is only accepted after an excused absence. It is your responsibility to see me for your work before or after school.

All students will be silent and respectful while other students read aloud or present their works.

The teachers and students will work together for a respectful, safe classroom.

****Behavior** No swearing: Respect each other and their belongings.

Be Respectful & Courteous to others. Treat everyone as Equal.

****Disciplinary Action: At anytime student don't obey Classroom Rules & School Rules and Regulation will be facing Disciplinary Action/Parent Conference.**

Grading system per quarter:

Tasks	Percent
Bellwork/Notes	15%
Classwork/Participation	25%
Homework	10%
Quiz/Test	20%
Project	15%
Final Exam	15%
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Total:	100%

Attendance Policy

Regular and prompt class attendance is an essential part of the educational experience. Marianas High School expects students to exercise good judgment regarding attendance and absences. Students will accept full responsibility for ensuring their work does not suffer because of absences. All students are expected to attend every scheduled class on time. Exceptions may be made for illness and valid emergencies. **Refer to student handbook for information.**

Rewrite Policy

Any written assignment that receives a less than desirable grade may be revised and rescored, so long as it was initially submitted on time, a student-teacher conference has taken place, and the rewritten assignment is submitted in a timely fashion (no more than 3 days after the assignment was returned to the student).

Plagiarism, Cheating, and Academic Integrity

Plagiarism is the practice of copying words, sentences, images, or ideas for use in written or oral assessments without giving proper credit to the source. Cheating is defined as the giving or receiving of illegal help on anything that has been determined by the teacher to be an individual effort. Both are considered serious offenses and will significantly affect your course grade. Please refer to the Student Handbook booklet for additional information.

Methodology

A combination of lecture, class discussion, presentations, videos, cooperative learning, and problem-based learning will be used in this course. Grades will be determined by the satisfactory and timely completion of assignments. The grade of each assignment is based on the prerequisite given for each assignment. Below is an overview of topic/ units and major assessments/assignments for this course. Please note dates/timeframes are subject to change and are an estimate.

Achieve3000 Lessons (please modify for your respective class):

Students will be completing a minimum of 3 lessons per week in their LA, Science, & Social Studies class. Students are welcome to do more lessons. Please see teacher for more info.

Course Calendar

Subject to Change (Students must update their syllabus)

Unit/ Topic	Course Activities	Unit Learning Outcomes	Assessments/ Assignments	Timeframe
1.1 Expressions and variables 1.2 Order of Operations and Evaluating Expressions 1.3 Real Numbers and the Number Line 1.4 Properties of Real Numbers 1.5 Adding and Subtracting Real Numbers 1.6 Multiplying and Dividing Real Numbers 1.7 The Distributive Property 1.8 An Introduction to Equations 1.9 Patterns, Equations, and Graphs 2.1 Solving One-Step Equations 2.2 Solving Two-Step Equations 2.3 Solving Multi-Step Equations 2.4 Solving Equation with Variables on Both Sides 2.5 Literal Equations and Formula 2.6 Ratios, Rates, and Conversions 2.7 Solving Proportions 2.8 Proportions and Similar Figures 2.9 Percent 2.10 Change Expressed as a Percent 3.1 Solving Inequalities and their graphs 3.2 Solving Inequalities using Addition or Subtraction 3.3 Solving Inequalities using Multiplication or Division 3.4 Solving Multi-Step Inequalities	Ø Daily Routine Ø Warm Up Ø Lesson Presentation (includes note taking) Ø Board work / Seat work Ø Group work (Class Work) Ø Individual Work (Classwork/homework) Ø Lesson quiz Ø Test Ø Cognitive Tutor Ø Online work (Khanacademy)	<ul style="list-style-type: none"> Evaluate and write variable expressions using the order of operations. Perform operations on integers. Comparing and ordering integers Locating points in a coordinate plane Solve equations such as multi-step equations and inequalities using addition, multiplication, and distributive properties. Solve equations with decimals. Simplifying variable expressions Solving equation using mental math Writing and solving two-step equation Using the distributive property to solve equations Writing and solving inequalities Graphing inequalities on a number line 	>>Classworks >>Homeworks >>Group works (participation) >> Lesson quiz >> Test >>Final Exam >> Journal >>Project >> End of the Topic/chapter activity >>Cognitive Tutor	First Quarter

<p>3.5 Working with Sets 3.6 Compound Inequalities 3.7 Absolute Value Equations and Inequalities 3.8 Unions and Intersections of Sets</p>				
<p>4.1 Using Graphs to Relate Two Quantities 4.2 Patterns and Linear Functions 4.3 Patterns and Nonlinear Functions 4.4 Graphing a Function Rule 4.5 Writing a Function Rule 4.6 Formalizing Relations and Functions 4.7 Arithmetic Sequences 5.1 Rate of Change and Slope 5.2 Direct Variation 5.3 Slope-Intercept Form 5.4 Point-Slope Form 5.5 Standard Form 5.6 Parallel and Perpendicular Lines 5.7 Scatter Plots and Trend Lines 5.8 Graphing Absolute Value Functions 6.1 Solving Systems by Graphing 6.2 Solving Systems Using Substitution 6.3 Solving Systems Using Elimination 6.4 Applications of Linear Systems 6.5 Linear Inequalities 6.6 Systems of Linear Inequalities</p>	<p>Ø Daily Routine Ø Warm Up Ø Lesson Presentation (includes note taking) Ø Board work / Seat work Ø Group work (Classwork) Ø Individual Work (Classwork/homework) Ø Lesson quiz Ø Test Ø Cognitive Tutor Ø Online work (Khanacademy)</p>	<ul style="list-style-type: none"> Students will be able to Describe and use the properties of exponents to simplify polynomial expressions Students will be able to Simplify, multiply, divide, add and subtract rational expressions Students will be able to Solve rational equations and real world applications that are modeled by rational equations Students will be able to Use the remainder theorem to factor and evaluate polynomials Students will be able to Describe and use the properties of rational exponents to simplify radical functions and expressions Students will be able to Solve radical equations and real world problems modeled by radical equations Students will be able to Use the binomial theorem to expand $(x+y)^n$ Students will be able to Add, subtract and multiply polynomials and polynomial functions Students will be able to Factor polynomials and use this method to solve polynomials Students will be able to Describe the characteristics of exponential functions and show how are they useful in solving real-world problems Students will be able to Describe characteristics of logarithmic functions and show how are they useful in solving real-world problems Students will be able to Solve systems of nonlinear equations 	<p>>>Classworks >>Homeworks >>Group works (participation) >> Lesson quiz >> Test >>Final Exam >> Journal >>Project >> End of the Topic/chapter activity >>Cognitive Tutor</p>	<p>Second Quarter</p>
<p>7.1 Zero and Negative Exponents 7.2 Multiplying Powers With the Same Base</p>	<p>Ø Daily Routine Ø Warm Up Ø Lesson Presentation (includes note taking) Ø Board work / Seat work</p>	<ul style="list-style-type: none"> Represent relations and functions (domain and range). Understand the concept of slope of a line. Graph and solve systems of linear equations. 	<p>>>Classworks >>Homeworks >>Group works (participation) >> Lesson quiz >> Test >>Final Exam</p>	<p>Third Quarter</p>

<p>7.3 More Multiplication Properties of Exponents</p> <p>7.4 Division Properties of Exponents</p> <p>7.5 Rational Exponents and Radicals</p> <p>7.6 Exponential Functions</p> <p>7.7 Exponential Growth and Decay</p> <p>7.8 Geometric Sequences</p> <p>8.1 Adding and Subtracting Polynomials</p> <p>8.2 Multiplying and Factoring</p> <p>8.3 Multiplying Binomials</p> <p>8.4 Multiplying Special Cases</p> <p>8.5 Factoring $x^2 + bx + c$</p> <p>8.6 Factoring $ax^2 + bx + c$</p> <p>8.7 Factoring Special Cases</p> <p>8.8 Factoring by Grouping</p> <p>9.1 Quadratic Graphs and Their Properties</p> <p>9.2 Quadratic Function</p> <p>9.3 Solving Quadratic Equations</p> <p>9.4 Factoring to Solve Quadratic Equations</p> <p>9.5 Completing the Square</p> <p>9.6 The Quadratic Formula and the Discriminant</p> <p>9.7 Linear, Quadratic, and Exponential Models</p> <p>9.8 Systems of Linear and Quadratic Equations</p>	<p>Ø Group work (Classwork)</p> <p>Ø Individual Work (Classwork/homework)</p> <p>Ø Lesson quiz</p> <p>Ø Test</p> <p>Ø Cognitive Tutor</p> <p>Ø Online work (Khanacademy)</p>	<ul style="list-style-type: none"> • Solving percent problems • Finding the percent of change in quantity • Linear Functions • Representing relations and functions • Finding and interpreting slopes of lines • Writing and graphing linear equations into variables • Graphing and solving systems of Linear Equations • Graphing Linear Inequalities in two variables • Slope-Intercept Form • Writing Linear Equations • Function Notation • Systems of Linear Equations • Polynomials and Nonlinear Functions • Adding, subtracting and multiplying polynomials • Using the power of a product, power of a quotient and power of a power properties 	<p>>> Journal</p> <p>>> Project</p> <p>>> End of the Topic/chapter activity</p> <p>>> Cognitive Tutor</p>	
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<p>10.1 The Pythagorean Theorem 10.2 Simplifying Radicals 10.3 Operations with Radical Expressions 10.4 Solving Radical Equations 10.5 Graphing Square Root Functions 10.6 Trigonometric Ratios 11.1 Simplifying Rational Expressions 11.2 Multiplying and Dividing Rational Expressions 11.3 Dividing Polynomials 11.4 Adding and Subtracting Rational Expressions 11.5 Solving Rational Equations 11.6 Inverse Variation 11.7 Graphing Rational Functions 12.1 Organizing Data Using Matrices 12.2 Frequency and histograms 12.3 Measures of Central Tendency and Dispersion 12.4 Box-and-Whisker Plots 12.5 Samples and Surveys 12.6 Permutations and Combinations 12.7 Theoretical and Experimental Probability 12.8 Probability of Compound Events</p>	<p>Ø Daily Routine Ø Warm Up Ø Lesson Presentation (includes note taking) Ø Board work / Seat work Ø Group work (Classwork) Ø Individual Work (Classwork/homework) Ø Lesson quiz Ø Test Ø Cognitive Tutor Ø Online work (Khanacademy)</p>	<ul style="list-style-type: none"> • Collect, organize, and display data; Use proper statistical methods to analyze data. • Find probabilities of dependent and independent events. • Measurement , Area & Volume • Classifying triangles and polygons • Finding areas of parallelograms and trapezoids • Finding circumferences and areas of circles • Finding surface areas and volume of solids • Making histograms and box-and-whisker plots • Choosing appropriate displays for data • Collecting and interpreting data • Finding permutations and combinations • Finding probabilities of disjoint and overlapping events • Finding probabilities of dependent and independent events • Graphing quadratic and exponential functions • Representing arithmetic and geometric sequences • Classify triangles and polygons. • Find surface areas and volumes of solids. 	<p>>>><i>Classworks</i> >>><i>Homeworks</i> >>><i>Group works (participation)</i> >> <i>Lesson quiz</i> >> <i>Test</i> >>><i>Final Exam</i> >> <i>Journal</i> >>><i>Project</i> >> <i>End of the Topic/chapter activity</i> >>><i>Cognitive Tutor</i></p>	<p>Fourth Quarter</p>
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Special Accommodations

Please see me or email me if you require special accommodations due to learning disabilities, religious practices, physical requirements, medical needs, or any other reasons.

BELL SCHEDULE: SY2017-2018

Regular Schedule:

Time	Class/Activity	Minutes
8:30-8:50 am	Homeroom/High School Success 101	20
8:50-8:55 am	Transition	5
8:55-10:10 am	1st Period	75
10:10-10:20 am	Transition	10
10:20-11:35 am	2nd Period	75
11:35-12:35 pm	LUNCH	60
12:35-1:50 pm	3rd Period	75
1:50-2:00 pm	BREAK	10
2:00-3:15 pm	4th Period	75
3:15 pm	DISMISSAL	

Half-Day Schedule:

Time	Class/Activity	Minutes
8:30-8:45 am	Homeroom/High School Success 101	15
8:50-9:30 am	1st Period	40
9:35-10:15 am	2nd Period	40
10:20-10:35 am	BREAK	15
10:35-11:15 am	3rd Period	40
11:20-12:00 pm	4th Period	40
12:00-12:30 pm	Lunch	30
12:30 pm	DISMISSAL	

-----SIGN & RETURN-----

PARENT-STUDENT AGREEMENT

Student Name: _____ Period: _____ Date: _____

I have received, read, and understand the **(ALGEBRA I)** course syllabus and outline. _____ (initial)

I understand my responsibilities in this class. I understand that this is an academic classroom and I agree to conduct myself accordingly. _____ (initial)

I understand the grading system and policies to be used in this class. _____ (initial)

I accept that the grades I receive while enrolled in this class will be a direct reflection of the level of effort and commitment that I put toward my assigned work. I accept responsibility for all work that will be assigned in this class. _____ (initial)

I accept responsibility for the consequences I will experience should I choose not to comply with all that is required of me for the successful completion of this course. _____ (initial)

I accept that if, at any time, I do not successfully complete all of the assigned work in this class, I will be placed on academic remediation, I will receive a disciplinary referral, and I will be required to explain my academic behavior in a conference attended by me, my parent/guardian, my teacher, and the vice-principal for student personnel. _____ (initial)

I will treat all of the school's property and (Teacher) property with the utmost respect and care. I understand that if **(Mrs. Barbie Singa)** decides that I have not been respectful of her property or school property, she has the right to not let me use it. If this happens, I must bring my own device, borrow a friends, or use the school's computers to complete all classroom activities and tasks. _____ (initial)

Student Signature

Print Name

By signing below, I acknowledge I have read this Parent-Student Agreement and that all of the contact information below is correct.

Parent/Guardian Signature

Print Name

Parent Email: _____

Contact Number: _____

Parent Facebook: _____ (Optional)