

# Interactive Math III Course Syllabus

- Instructor:** Mrs. Huggins
- Office Hours:** TBA
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- Prerequisites:** C- or better in Algebra I or Geometry

**Materials:** 3-ring binder, college ruled notebook paper, graphing paper (optional but recommended), TI-84 Graphing Calculator (optional), and pencils.

**Course Description:** Interactive Math III is a year long course. During this year, you will study algebra, geometry, probability, graphing, statistics, and trigonometry all integrated in one course. You will be challenged to communicate, prove, explore, experiment, and reflect on your work.

## **Expected Learning Outcomes:**

- Attend to precision
- Make use of structure
- Matrices
- Interpret and Graph Exponential/Logarithmic Functions
- Derive the formula for the sum of a finite geometric series
- Binomial Expansion
- Systems of Equations
- Functions and their graphs
- Interpret Inverse Functions and their graphs
- Use Trigonometric Functions to model periodic phenomena
- Inverse Trig Functions
- Know precise mathematical definitions
- Prove mathematical theorems
- Derive the equation of a circle
- Use Functions to model situations and to make predictions

## **Expectations**

You must show all of your work. There will be some homework or test/quiz problems you don't know how to do. If you are unable to solve any **homework** problems, you must write down what steps or strategies you have tried to use to solve the problem, and write down specific questions that you need to ask me in order to solve the problem.

You will **not** receive any credit on homework or test/quizzes if you fail to show all of your work. I **do not** accept answers without verification.

## **Late Work Policy**

Homework is due at the beginning of each class period. However, if you were unable to do the homework, you can still hand it in for partial credit. I will deduct 2 points for everyday past the original due date, up to a 50% maximum penalty.

Once I have given the chapter test, I will no longer accept late homework.

## Class Requirements

- 1) Work Ethic/Bell work:** I expect you to show up to class, on time, everyday. You are also expected to come to class prepared, and ready to learn. Most days there will be an opening activity on the overhead. Each Activity will require you to solve for solutions to problems and show why solutions work either by calculator evidence or by proof. Discussions regarding these activities will help in understanding of previous days work or SAT preparation.
- 2) Homework:** You will get homework assignments daily and will be due the following class period. Assignments will include written work as well as the use of graphing calculators. A variety of problems from calculations to explorations with use of data will also be assigned. Students will be encouraged to work in study groups to complete each assignment.
- 3) Assessment Homework:** You will be assigned homework that is intended to measure your understanding of specific concepts. These homework assignments **must** be completed in order to pass this course.
- 4) Problem of the Week (POW):** Each week you will be given a problem of the week that you will be required to solve outside of class. This problem will require you to demonstrate you ability to communicate and problem solve.
- 5) Tests and Quizzes:** Tests will be given at the end of each unit and will be worth up to 100 points. You will not be able to re-take tests or quizzes. You will be required to show all your work for each test/quiz. Quizzes can be given at anytime, and are worth up to 50 points. Finals will be given at the end of each semester and will be worth 100 points.
- 6) Projects:** We will be doing a variety of projects throughout the year. Projects are intended to help you apply the mathematics that you are learning in class.

## Grading Policy

<b>Work Ethic/Bell Work</b>	.....	<b>5%</b>
<b>Homework</b>	.....	<b>5%</b>
<b>Assessment HW</b>	.....	<b>11%</b>
<b>Test</b>	.....	<b>25%</b>
<b>Quizzes</b>	.....	<b>15%</b>
<b>Final</b>	.....	<b>20 %</b>
<b>POW</b>	.....	<b>11%</b>
<b>IXL/Portfolio</b>	.....	<b>8%</b>

Do Not Procrastinate