**Applied Math 2013-14; Syllabus** **kyle.markwalter@kippsanjose.org** **408-712-8645**

Mr. Markwalter **Website:** http://markwaltermath.weebly.com/

**Course Description:**

Applied Math is that point where everything starts coming together. Building off of your previous math skills, we will explore the ways those ideas can be applied to real world situations, especially data modeling. Most of the concepts we will cover are borrowed from Algebra II, but AP Stat, Pre-Calculus, and Geometry will also serve as sources for our discussions and explorations. The application of functions will see much of our energy. Comfort with the behavior of functions, graphing functions, and manipulating functions will prepare students for the math courses that lie beyond, especially Pre-Calculus and Calculus as well as serve as a means by which we can relate otherwise disjoint mathematical concepts.

**Overview of Units:**

\*I reserve the right to modify the following schedule. Any deviations will be clearly conveyed.

1. Categorical Data and Representations
2. Quantitative Data and Representations
3. Modeling with Linear Functions
4. Modeling with Quadratic functions
5. Modeling with higher-order Polynomials
6. Modeling with Exponential, Radical, and Logarithmic Functions
7. Modeling with Rational Functions
8. Applications of Conic Sections
9. Probability and Statistics
10. Sequences and Series in Real Life
11. Trigonometric Functions

**Materials:**

*Provided Textbook:* “Using & Understanding Mathematics: A Quantitative Reasoning Approach 5th Edition.” Bennett and Briggs.

*Required:*1 large Notebook: Spiral or Binder (student must be able to take notes and store returned work)

2+ pencils, blackpens

Graphing Calculator

(There are a limited number of classroom calculators that can be borrowed.)

With the exception of the textbook and calculator, students are to bring these supplies with them to class every day. Students who do not come to class prepared will receive consequences.

**Academic Expectations:**

This course covers a wide variety of topics in order to prepare students for college courses. We will move quickly. As such, students must give their full effort in class and on every assignment. All assigned work must be done on time, in pencil or black pen. Work must be stapled when students arrive to class. Any posted answer keys should be referenced to ensure correct work. They are NOT for copying. Students will take ownership of their learning and seek out assistance from me or a classmate when they are having difficulty with the material. I will hold office hours regularly and by request. There will always be at least two tutoring sessions per week.

Students will abide by the KSJC Honor Code. The Honor Code declares, “As a member of the KIPP San Jose Collegiate community, I pledge my full and steadfast support to the Honor Code and I promise nether to lie, to cheat, nor to steal.”Classwork and assignments are often assigned with the intent that you will work with your classmates to solidify your understanding. However, cheating is theft and you will receive a failing grade for the assessment and face the consequences listed in the Student Handbook.

Please reference your student handbook for the school policies on absences and late work. Students with excused absences should have their homework completed upon returning to school and must contact me immediately regarding missed tests or quizzes. Late work and missing work will not be accepted after two weeks. Students who do not bring completed assignments to class will complete in after school detention or ENL (Every Night Lights).

**Behavior Expectations:**

1. Show respect to yourself and everyone you interact with. This means:
   1. No swearing
   2. No talking over others
   3. Avoiding insensitive comments others
   4. Looking others in the eyes

2) Be in your seat ready to work from the start of class. If you are not seated and working when the bell rings, you may be marked tardy.

3) Food, drinks, and all electronic devices belong outside the classroom.

4) Follow directions and have all assignments completed on time.

School policies outlined in the student handbook will be enforced in my classroom.

**Grading Policy In all instances, detailed explanations and justifications for answers are required for full credit.**

**25% *Formative Assessments (Practice)***

Classwork

Daily Homework

Daily Entrance Tickets

Check-Up Quizzes

**75% *Summative Assessments (Performance)***

Portfolio Projects

End of Unit Exams

Multi-Unit Cumulative Exam

Comprehensive Midterm & Final Exam

Much of a students’ time and effort will be spent on material that will count towards their “Practice” Grade. However, this time and effort will ensure students are prepared to be successful on the aspects of the course that count towards their more heavily weighted “Performance” grade. Students who do not demonstrate proficiency on Summative Assessments (not including the Midterm & Final Exam**) will be required to attend tutorials and retake a similar assessment until they show mastery of the material.** I want to help my students develop the self-awareness and study stills necessary to be successful in college-level math courses where many times 100% of their grade is based off of 2-4 exams.

**A note on homework.** I will always check that it is completed. Students will place homework on their desks at the beginning of class to be gathered as I circle the room. I will always return homework. However, I will almost never correct answers. Answers will be posted for reviewing. It is the students’ job to find those answers and check how they did. From there, they should come to me with questions and concerns.

**The suggested homework layout:**

Name, date, and assignment in the top right.

All work in pencil

Answers circled

One line skipped between problems

Left justified

**Grading Scale:**

97-100 % = A+ 87-89% = B+ 77-79 % = C+

93-96 % = A 83-86 % = B 73-76 % = C

90-92% = A- 80-82 % = B- 70-72 % = C-

0-69 % = F

**Portfolio Projects:**

Students will be completing a set of projects that reinforce the main concepts learned in class for each unit. These require a high level of problem solving skills, written explanations of the techniques, theorems, and reasoning applied, and solid organization. All justifications must be written in complete sentences and all algebraic and graphic work must be shown. The project requirements will be outlined every time a project is assigned on the assignment sheet. Responses will be graded on both content and writing conventions. A draft of the project will be turned in several days before the final assignment is due. I will return comments and expect corrections by the time the final project is due.

**Assignments and Help:**

The easiest place to find homework assignments, request extra help, and find useful links is on Mr. Markwalter’s website. The address is: http://markwaltermath.weebly.com/

**Parent & Student Contact:**

I can be contacted using the phone number or email address at the top of my syllabus. I am available by phone Monday through Friday 7am-9pm and Saturday-Sunday 12pm-6pm. Please call for any reason! Leave a message if I do not answer and I will get back to you as soon as possible. I would also love to meet with Parents/Guardians after school or have you observe a class. Just contact me in advance to set up an appointment.

Please sign below and have your guardian sign below indicating that you both have read and agree to the terms outlined in the Pre-Calculus syllabus. Students must return this bottom section of the form signed by Friday September 6th .

Student Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Parent Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Parent Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Preferred parent phone #:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Preferred parent email:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_