MONTE VISTA CHRISTIAN SCHOOL
Algebra 1
Instructor: Debbie Siemsen
Course Syllabus

Course Description:

An introduction to the language and skills is necessary for higher mathematics. Symbolic reasoning and calculations with symbols are central in algebra. Through the study of algebra, a student develops an understanding of the symbolic language of mathematics and the sciences. In addition, algebraic skills and concepts are developed and used in a wide variety of problem solving situations. This course emphasis the development of social skills, 21st century skills as students collaborate with peers combined in a project based learning environment that enhances the mathematical concepts through application.

Curricular Mapping:

Building upon the students' knowledge involving working with real numbers and solving elementary algebraic equations, this class extends those skills to include more complex and abstract situations. The problem solving strategies and skills from Algebra 1 form the foundation that will allow a student to be successful in future math and science courses.

Course Objectives:

Upon the successful completion of this course the student will be able to:
1. Solve equations with one variable
2. Represent linear relationships as graphs, equations, tables, or verbal descriptions
3. Find solutions to linear system of equations with 2 variables.
4. Graph and factor quadratic equations and solve quadratic equations by factoring and completing the square.
5. Use the basic laws of exponents to simplify expressions including expressions with square roots
6. Categorize relations as linear or non-linear by examining the rate of change
7. Interpret information presented in graphs

Course Outline and Requirements:

Texts:

HMH Fuse: Algebra 1 Common Core Edition for the iPad

1. Purchase the App called HMH Fuse: Algebra 1, from App Store, on the iPad. It is free for the first 2 chapters and the other chapters are an in-App purchase for a total of $19.99. There are 2 identical looking apps. The only difference is that the one aligned to the Common Core Standards is the book for this course.

2. When downloading the first chapter you will need to purchase the App using your iTunes account.
3. You will be prompted to register the App. You MUST register it using the same iTunes account that was used to purchase the App.
4. Follow your teacher's instructions on which chapters to download, once you've made the in-App purchase.
5. *Warning:* the textbook takes up lots of memory!

Required Materials- Every student is required to bring the following items to class each day:
- iPad that is charged and has the digital text book downloaded.
- A three ring binder dedicated to math only and should contain:
  - Graph paper and Lined paper, 4 dividers, pencil pouch (with red pens, pencils, red pen, highlighter, eraser, ruler, Texas Instruments Calculator TI -30 xiis, dry erase pens)

Doceri, Explain Everything, or another screen cast App.

Course Outline
Unit 1: Equations
Unit 2: Inequalities
Unit 3: Function Concepts
Unit 4: Linear Functions
Unit 5: System of Equations and Inequalities
Unit 6: Exponents and Polynomials
Unit 7: Factoring Polynomials
Unit 8: Quadratic Expressions and Equations
Unit 9: Exponential Functions and Data Analysis

Grading:
All students grades will be weighted as follows:
Quarter Grades:
Homework Notebooks 20%
Quizzes 25%
Tests 40%
Projects and Participations 15%
Semester Grades
Quarters 80%
Final 20%

Make-Up Work

Our grading policy allows for make-up work for excused absences. Students with excused absences will have the same number of days to complete missed assignments

and tests as the number of days they were absent. For example, a student with two days of excused absence will have two days to complete all make-up work. It is the student's responsibility to determine what work or tests were missed and to make arrangements with the teacher to make up the work. ***A student absent on the day of a test must be prepared to take the test upon his/her return***. Students are expected to turn work in on time*.*

School Policies:
Students are subject to all academic policies of the school as printed in the Student Handbook, available online. Furthermore, it is each student's responsibility to read and follow all academic policies of the school.

Class Policies:
1. **Attendance**
   Consistent attendance contributes to success in class. Students who are part of the learning process in class find the homework easier and understand the materials better. Missing more than one day usually requires some kind of tutoring for the student to catch up, so make every effort to come to class and actively participate while you are there.
2. **Tardiness**
   Students need to be in their assigned seat and have their materials ready to begin class when the bell rings. Materials include a pencil, math journal, homework, and pen ready to grade. A student who is not ready to begin class when the bell rings is subject to be marked tardy.
3. **Late Work Policy**
Homework will be accepted one day late for up to 50% credit. Students will lose 10% prepay for late projects/presentations.
4. **Absent work**
   Students with excused absences will have the same number of days to complete missed assignments and tests as the number of days they were absent.
5. **Assignments**
   In order to receive credit on an assignment, a student must:
- Attempt all of the assigned problems.
- Show **all work** in pencil.

6. **Exams**
- If a student is absent the day of a test/quiz, he/she will be expected to make up that exam on the day they return to class.
- Students need to be prepared for tests/quizzes by having a scientific calculator if needed. They **will not** be allowed to use graphing calculators, iPad calculator Apps, or cell phones on quizzes or tests.

- Talking during a test, not keeping answers or work covered, or looking at someone else's work may result in a zero grade for that test or quiz. Anyone cheating or allowing others to cheat will receive a zero on that assessment.

<u>Tips for the Students</u>:
- Charge your iPad every night
- Take good notes
- Do your homework
- Participate both individually and in group projects
- Ask questions

<u>Instructor Contact</u>:
1. **Office location and hours:** M3, 7:30 -8 am; 3:00-4:00 or make an appointment.
2. **Email:** debbiesiemsen@mvcs.org

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ALGEBRA 1
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<u>Terms of Agreement</u>

<u>Terms</u>:

A definition of the agreement written out in a clear, concise statement which explains the responsibility of all parties involved to commit to the policies, guidelines and procedures laid out in the course syllabus.

Parent Signature	Date

Student Signature	Date