



Course Syllabus
ALGEBRA w/ FINANCE
Fall 2021
Instructor: Anthony Gideon

Course Description:

18 weeks/1 credit

Prerequisite: Algebra II with Statistics

Algebra with Finance is a college and career preparatory course that integrates algebra, precalculus, probability and statistics, calculus and geometry to solve financial problems that occur in everyday life. Real-world problems in investing, credit, banking, auto insurance, mortgages, employment, income taxes, budgeting and planning for retirement are solved by applying the relevant mathematics that are taught at a higher level. This course may be used as the fourth math credit required for graduation.

Course Objectives:

Banking Services

- Understand long term costs associated with borrowing money.
- Evaluate banking services for varying purposes including checking, savings, loans, and market investments.
- Utilize exponential functions to compare compound interest and simple interest.

Investing

- Read, interpret, and algebraically model stock ownership and transaction data.

Employment and Income Taxes

- Critiquing gross pay and net pay to determine total salary deductions.
- Evaluate insurance needs and their financial impact for various businesses and industries.
- Use linear and polynomial functions to model Internal Revenue Service and Social Security Administration regulations using linear and polynomial functions.

Automobile Ownership and Operation

- Calculate the long-term impact of major purchases on budgets.

Mathematical Operations

- Use mathematical operations in the workforce using whole numbers including addition, subtraction, multiplication, and division to solve complex problems.
- Solve real-world business and industry problems involving mathematical operations with fractions, decimals, and percentages.
- Calculate averages, simple ratios, simple proportions, or rates using whole numbers and decimals.
- Convert numbers from one form to another using whole numbers, fractions, decimals, or percentages.
- Solve multi-step real-world word problems, first, by placing information in the correct order, then, performing calculations.
- Analyze a set of data utilizing mean, median, and mode.

Consumer Credit

- Use algebraic proportions and exponential growth and decay to make wise credit decisions.

James Clemens High School

11306 County Line Road
Madison, AL 35756



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Independent Living

- Evaluate offers, such as advertisements, warranties, and guarantees, from producers and suppliers to make wise consumer decisions.
- Compare and contrast housing options including rentals, lease to purchase, mortgage, or purchasing by cash.
- Solve real-world mathematical problems involving perimeter, circumference, area, volume, and surface area.

Retirement Planning and Budgeting

- Compare personal, state, and federal retirement plans to develop a retirement and personal budget plan.

Classroom Rules and Expectations: Students are expected to be:

- Ready
- Respectful
- Responsible
- Resourceful

Accommodations: Requests for accommodations for this course or any school event are welcomed from students and parents.

Concerning Laptop Utilization: Student laptops should not be hard-wired to the network or have print capabilities. 2. Use of discs, flash drives, jump drives, or other USB devices will not be allowed on Madison City computers. 3. Neither the teacher, nor the school is responsible for broken, stolen, or lost laptops. 4. Laptops and other electronic devices will be used at the individual discretion of the teacher.

Grading Policy:

Test grades will account for 70% of the 9-weeks grade, with the remaining 30% being determined by quiz/daily grades. The grading scale is as follows: A (90-100%), B (80-89), C (70-79), D (65-69), and F (below 65). Grades will be a reflection of mastery of the standards. Make sure all absences are excused as class work can be made up and graded for excused absences only. The final exam counts for 20% of the final grade.

Make-Up Work Policy:

- If a student is absent, any assignments or assessments that were due on the day of the absence must be completed and submitted on the day preceding his/her return for possible full credit. Any after that point is considered late and will result in a 5 point penalty per day.

Course Materials:

- Electronic Device (Laptop, Chromebook, Tablet)
- Notebook/Binder
- Scientific Calculator
- Pencils

Texts/Required Resources:

- Khan Academy
- Delta Math



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18 - WEEK PLAN*	
WEEK 1 (Banking)	Understand long term costs associated with borrowing money.
WEEK 2 (Banking)	Evaluate banking services for varying purposes including checking, savings, loans, and market investments.
WEEK 3 (Banking)	Utilize exponential functions to compare compound interest and simple interest.
WEEK 4 (Investing)	Read, interpret, and algebraically model stock ownership and transaction data.
WEEK 5 (Employment & Income Taxes)	Critiquing gross pay and net pay to determine total salary deductions.
WEEK 6 (Employment & Income Taxes)	Evaluate insurance needs and their financial impact for various businesses and industries.
WEEK 7 (Employment & Income Taxes)	Use linear and polynomial functions to model Internal Revenue Service and Social Security Administration regulations using linear and polynomial functions.
WEEK 8 (Automobile Ownership & Operation)	Calculate the long-term impact of major purchases on budgets.
WEEK 9 (Mathematical Operations)	Use mathematical operations in the workforce using whole numbers including addition, subtraction, multiplication, and division to solve complex problems.
WEEK 10 (Mathematical Operations)	Solve real-world business and industry problems involving mathematical operations with fractions, decimals, and percentages.
WEEK 11	Calculate averages, simple ratios, simple proportions, or rates using whole numbers and decimals.

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(Mathematical Operations)	
WEEK 12 (Mathematical Operations)	Convert numbers from one form to another using whole numbers, fractions, decimals, or percentages.
WEEK 13 (Mathematical Operations)	Solve multi-step real-world word problems, first, by placing information in the correct order, then, performing calculations.
WEEK 14 (Mathematical Operations)	Analyze a set of data utilizing mean, median, and mode.
WEEK 15 (Consumer Credit)	Use algebraic proportions and exponential growth and decay to make wise credit decisions.
WEEK 16 (Independent Living)	Evaluate offers, such as advertisements, warranties, and guarantees, from producers and suppliers to make wise consumer decisions.
WEEK 17 (Independent Living)	Solve real-world mathematical problems involving perimeter, circumference, area, volume, and surface area.
WEEK 18 (Retirement Planning and Budgeting)	Compare personal, state, and federal retirement plans to develop a retirement and personal budget plan.

*** This syllabus serves as a guide for both the teacher and student; however, during the term it may become necessary to make additions, deletions or substitutions.**