

FOLSOM CORDOVA UNIFIED SCHOOL DISTRICT



Personal and Business Finances

Board Approval Date: June 17, 2021	Course Length: 2 Semesters
Grading: A-F	Credits: 5 Credits per Semester
Proposed Grade Level(s): 11, 12	Subject Area: Mathematics Elective Area (if applicable):
Prerequisite(s): N/A	Corequisite(s): N/A
CTE Sector/Pathway:	
Intent to Pursue ‘A-G’ College Prep Status: Yes	
A-G Course Identifier: (c) Mathematics	
Graduation Requirement: No	
Course Intent: District Course Program (if applicable):	
<p>The Folsom Cordova Unified School District prohibits discrimination, intimidation, harassment (including sexual harassment) or bullying based on a person’s actual or perceived ancestry, color, disability, race or ethnicity, religion, gender, gender identity or gender expression, immigration status, national origin, sex, sexual orientation, or association with a person or group with one or more of these actual or perceived characteristics. For concerns/questions or complaints, contact the Title IX Coordinator(s) and Equity Compliance Officer(s): Curtis Wilson, cmwilson@fcusd.org (grades K-5) and Jim Huber, Ed. D., jhuber@fcusd.org (grades 6-12), 1965 Birkmont Drive, Rancho Cordova, CA 96742, 916-294-9000 ext.104625</p>	

COURSE DESCRIPTION: (Online Course)

Financial Algebra focuses on real-world financial literacy, personal finance, and business subjects. Students apply what they learned in Algebra 1 and Geometry to topics including personal income, taxes, checking and savings accounts, credit, loans and payments, car leasing and purchasing, home mortgages, stocks, insurance, and retirement planning. Students then extend their investigations using more advanced mathematics, such as systems of equations (when studying cost and profit issues) and exponential functions (when calculating interest problems). This course is built to state standards as they

apply to Financial Algebra and adheres to the National Council of Teachers of Mathematics' (NCTM) Problem Solving, Communication, Reasoning, and Mathematical Connections Process standards. Concepts will be personalized through student activities and journals.

DETAILED UNITS OF INSTRUCTION:

Unit Number/Title	Unit Essential Questions	Examples of Formative Assessments	Examples of Summative Assessment
1: What is Money?	How is money defined and created? What are the 3 functions of money? What is inflation, deflation, and recession?	*Practice Problems *Practice: What Is Money?	*Unit Test
2. Cost of Living and Budget	How do employers compensate employees for their work? What kind of taxes are you responsible for when you get older? Why is it important to be able to examine all the deductions between the gross pay and the net pay you are receiving? How can you utilize a budget and put it to good use? How can budgeting influence your financial future?	*Practice Problems *Practice: Income and Budgeting	*Unit Test
3. Income Tax	What kind of taxes am I responsible for when I get older? Why is it important to be able to examine all the deductions between the gross pay and the net pay you are receiving? How do you correctly complete tax forms?	*Practice Problems *Practice: Income Tax	*Unit Test
4. Checking and Savings	What are the different types of interest and how do they apply to banking? What are the different types of banks you can use?	*Practice Problems *Practice: Checking and Savings	*Unit Test

	<p>How is a check written? What is a check register and how is it used to determine a current account balance? How do you evaluate what type of checking account is right for you?</p>		
5. Purchasing and Credit	<p>How do I calculate cost when purchasing when using sales tax, coupons, rebates, and sales? What should I look for when shopping around for a credit card? What does it mean to be “creditworthy” and how can that affect me?</p>	<p>*Practice Problems *Practice: Purchasing and Credit</p>	*Unit Test
6. Loans and Payments	<p>What is a single payment loan and how is the interest and maturity value calculated? What is an installment loan and how is the monthly payment, total amount repaid, and the finance charge found? When paying off a loan, how much of the payment is going to interest and how much is actually paying off the loan? When paying off a loan early, how is the final payment determined?</p>	<p>*Practice Problems *Practice: Loans and Payment</p>	*Unit Test
7. Car Ownership	<p>What determines the cost of a new vehicle? How does the cost of a vehicle compare to the cost that a dealer might pay? What is depreciation and how it used to find the cost of a vehicle per mile? What are the similarities and differences of leasing and renting a vehicle?</p>	<p>*Practice Problems *Practice: Car Ownership</p>	*Unit Test

8. Home Ownership	<p>What is a mortgage loan and how does the down payment affect this amount? How is the monthly payment for a mortgage payment calculated? What are closing costs and how does this affect the mortgage? What are the various expenses that come with owning a home and how is it factored into a budget?</p>	<p>*Practice Problems *Practice: Home Ownership</p>	<p>*Unit Test</p>
9. Insurance and Retirement	<p>What are the different types of car insurance and how is the cost calculated? What is homeowner's insurance, how does it protect you, and how is the cost calculated? What is life insurance and how can we use tables to compute the annual premium for term life insurance? What are the different types of retirement accounts?</p>	<p>*Practice Problems *Practice: Insurance and Retirement</p>	<p>*Unit Test</p>
10. Investments	<p>What are some different ways to invest your money? How can we compute what our investments will be over a period of time? Which is the better investment, a high or low APY? How do we calculate the total cost of a stock investment? How do we compute the loading charge, number of shares purchased, and profit or loss when you sell a mutual fund?</p>	<p>*Practice Problems *Practice: Investments</p>	<p>*Unit Test</p>
11. Business	<p>What are cost and revenue functions and how are they</p>	<p>*Practice Problems *Practice: Business</p>	<p>*Unit Test</p>

	<p>used?</p> <p>How do you determine possible net profit utilizing algebraic functions?</p> <p>What are the various expenses that are needed to know to run a business?</p> <p>How do storage, inventory, and other concerns affect a business?</p>		
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ESSENTIAL STANDARDS:

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California has not adopted its own standards for financial literacy. The National Council of Teachers of Mathematics Standards (NCTM) for Grades 9 – 12, and the National Standards for Business Education provide academic standards covered in Mathematics for Business and Personal Finance. Further, the California Common Core State Standards for Mathematics (CCSSM) provide multiple entry points that teach financial literacy concepts. Those standards that are applicable to this course are as follows:

THE NCTM STANDARDS FOR BUSINESS EDUCATION

Number and Operation

1. Understand numbers, ways of representing numbers, relationships among numbers, and number systems.
2. Understand the meanings of operations and how they relate to one another
3. Compute fluently and make reasonable entries.

Algebra

1. Understand patterns, relations, and functions.
2. Represent and analyze mathematical situations and structures using algebraic symbols.
3. Use mathematical models to represent and understand quantitative relationships.
4. Analyze change in various contexts.

Measurement

1. Understand measurable attributes of objects and the units, systems, and processes of measurement.
2. Apply appropriate techniques, tools, and formulas to determine measurements.

Data Analysis

1. Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.
2. Select and use appropriate statistical methods to analyze data.
3. Develop and evaluate inferences and predictions that are based on data.
4. Understand and apply basic concepts of probability.

Problem Solving

1. Apply and adapt a variety of appropriate strategies to solve problems.
2. Solve problems that arise in mathematics and in other contexts.
3. Build new mathematical knowledge through problem solving.
4. Monitor and reflect on the process of problem solving.

Reasoning and Proof

1. Recognize reasoning and proof as fundamental aspects of mathematics.
2. Make and investigate mathematical conjectures.

3. Develop and evaluate mathematical arguments and proofs.
4. Select and use various types of reasoning and methods of proof.

Communication

1. Organize and consolidate mathematical thinking through communication.
2. Communicate mathematical thinking coherently and clearly to peers, teachers, and others.
3. Analyze and evaluate the mathematical thinking strategies of others.
4. Use the language of mathematics to express mathematical ideas precisely.

Connections

1. Recognize and use connections among mathematical ideas.
2. Understand how mathematical ideas interconnect and build on one another to produce a coherent whole.
3. Recognize and apply mathematics in contexts outside of mathematics.

Representation

1. Create and use representations to organize, record, and communicate mathematical ideas.
2. Select, apply, and translate among mathematical representations to solve problems.
3. Use representations to model and interpret physical, social, and mathematical phenomena.

THE NATIONAL STANDARDS for BUSINESS EDUCATION

The National Standards for Business Education are based on a vision and a set of competencies designed to prepare students to become knowledgeable and ethical decision makers as they fulfill their roles as consumers, workers, and citizens.

Mathematical Foundations

Apply basic mathematical operations to solve problems.

Number Relationships & Operations

Solve problems involving whole numbers, decimals, fractions, percent, ratios, averages, and proportions.

Patterns, Functions, and Algebra

Use algebraic operations to solve problems.

Measurements

Use common international standards of measurement when solving problems.

Statistics and Probability

Analyze and interpret data using common statistical procedures.

Problem Solving Applications

Use mathematical procedures to analyze and solve business problems.

Personal Decision Making

Use a rational decision-making process as it applies to the roles of citizens, workers, and consumers.

Earning a Living

Identify various forms of income and analyze factors that affect income as part of the career decision-making process.

Managing Finances and Budgeting

Develop and evaluate a spending/savings plan.

Savings and Investing

Evaluate savings and investment options to meet short term- and long-term goals.

Buying Goods and Services

Apply a decision-making model to maximize consumer satisfaction, when buying goods and services.

Banking

Evaluate services provided by financial institutions to transfer funds.

Using Credit

Analyze the factors that affect the choice of credit, the cost of credit, and the legal aspects of using credit.

Protecting Against Risk

Analyze choices available to consumers for protection against risk and financial loss.

RELEVANT STANDARDS AND FRAMEWORKS, CONTENT/PROGRAM SPECIFIC STANDARDS:

Link to Common Core Standards (if applicable):

Educational standards describe what students should know and be able to do in each subject in each grade. In California, the State Board of Education decides on the standards for all students, from kindergarten through high school.

<https://www.cde.ca.gov/be/st/ss/documents/finalelaccsstandards.pdf>

Link to Framework (if applicable):

Curriculum frameworks provide guidance for implementing the content standards adopted by the State Board of Education (SBE). Frameworks are developed by the Instructional Quality Commission, formerly known as the Curriculum Development and Supplemental Materials Commission, which also reviews and recommends textbooks and other instructional materials to be adopted by the SBE.

Link to Subject Area Content Standards (if applicable):

Content standards were designed to encourage the highest achievement of every student, by defining the knowledge, concepts, and skills that students should acquire at each grade level.

<https://www.nctm.org/Standards-and-Positions/Principles-and-Standards/Principles,-Standards,-and-Expectations/>

Link to Program Content Area Standards (if applicable):

Program Content Area Standards apply to programs such as International Baccalaureate, Advanced Placement, Career and Technical Education, etc.

TEXTBOOKS AND RESOURCE MATERIALS:

Textbooks

Board Approved	Pilot Completion Date (If applicable)	Textbook Title	Author(s)	Publisher	Edition	Date
<i>Yes</i>		<i>APEX: Financial Algebra</i>		Apex Online Courses		<i>2019</i>

Other Resource Materials

N/A

Supplemental Materials

Board approved supplemental materials (Including but not limited to: Film Clips, Digital Resources, Supplemental texts, DVDs, Programs (Pebble Creek, DBQ, etc.):

N/A