

Consumer Mathematics

I. Course Description

This course prepares the student for making financial decisions with practical instruction on taxes, record keeping, investments, interest on loans and savings, personal banking, and costs of transportation, clothing, food, utilities, and insurance. Being a good steward of resources is a primary emphasis.

II. Goals and Objectives

- A. Realize the costs in buying and operating a car
- B. Understand the installment plan
- C. See the need for comparison shopping
- D. Assess the costs and details involved in travel
- E. Evaluate and manage income
- F. Learn importance of a budget
- G. Assess costs and responsibilities in home ownership
- H. Budget for food and clothing
- I. Understand tax-related information
- J. Understand various aspects of banking
- K. Understand investing
- L. Understand the needs and responsibilities of running a small business

III. Course Outline

First Semester

- A. Buying a car
 - 1. Total cost in buying a vehicle
 - 2. Types of insurance
 - 3. Deductibles and limited coverage
 - 4. Costs of using an installment plan
 - 5. Calculate depreciation
 - 6. See the need for comparison shopping
 - 7. Compare operating costs
 - 8. Understand leasing as an alternative
- B. Travel
 - 1. How to get discount prices and calculate total cost
 - 2. Compare travel time and money by plane with other modes
 - 3. Know the time zones in USA
 - 4. Car rental charges
 - 5. Compare cargo space of rental trucks
- C. Income
 - 1. Calculate gross pay including overtime
 - 2. Operation of time clocks and time cards

3. Punctuality and company policy on tardiness
4. Calculate piecework wages / Doing your best work
5. Incentive bonuses
6. Satisfying those you serve
7. Tip income
8. Importance of productivity / Sales commissions
9. Calculate net pay
10. Payroll deductions
11. Self-employment

D. Budgeting

1. Time is a gift of God
2. Importance of budgeting
3. Construct a circle graph of budgeted time and expense
4. The need for budget constraints on household expenses
5. Set up basic budget
6. Expand a weekly or monthly budget to an annual one and vice versa
7. Balance a budget
8. Be able to adjust a budget
9. Know what a standardized budget is

E. Housing

1. Compare renting and buying
2. Calculate the amount of interest paid in a long-term mortgage
3. Assessment of real property and tax rates
4. Compute annual tax
5. How homeowner's insurance rates are expressed
6. Compute insurance costs
7. Care for property as a steward under God
8. Calculate expenses for furnishing a home
9. Understand downward graduated billing used for sale of electricity and natural gas
10. Know how to read meters
11. Compute usage and cost over time
12. Calculate water bill
13. Determine cost of telephone usage: savings available and billing methods

F. Food

1. Calculate the percent of family budget spent for food
2. Calculate unit prices: compare two foods measured in same or different units and calculate savings per unit
3. Compute the percent of increase or decrease in particular items and food costs in general
4. Apply the Consumer Price Index to compare prices from different years
5. Compare prices for same time period in different parts of country and/or world
6. Develop competence in English-metric conversions to compare prices and determine recipe quantities
7. Realize amount of money spent in eating out and the impact on the budget

8. Calculate cost of a food freezer
 9. Calculate savings with coupon usage, buying generic or store brands, and home-made rather than prepared foods
 10. Read food labels
 11. Need for controlling Caloric intake: calculate need and expenditure based on age, weight, height, and activity level
- G. Semester Review and evaluation

Second Semester

A. Clothing

1. What part of family budget: compare needs and funds
2. Complete mail order forms
3. Recognize total cost of clothing
4. Know how fabric is sold
5. Compute cost of making clothes
6. Compute sale prices of clothing given a percentage discount
7. Double discounts
8. Use Consumer Price Index for comparison of costs over years
9. Understand relationship between retail cost, markup, and selling price
10. Net profit and net loss
11. Express markup as a percent of cost and determine selling price
12. Compute total factory cost of producing goods

B. Federal Taxes and Records

1. How social security system is funded: calculate employee and employer contributions
2. Determine payroll deductions for federal income tax using charts
3. Calculate net pay
4. How to fill out tax forms including computation of the charitable contribution, exemptions, dividend and interest income, and deductions
5. Be able to complete Schedule A on the tax form
6. Compute state income tax
7. Advantages of keeping good records

C. Banking

1. Know various kinds of checking: charges, writing cheques, keeping a checkbook record
2. Reconcile a bank statement
3. Apply simple interest formula
4. Calculate interest charged for use of installment plan
5. Computation of credit card balances
6. Advantages of compounding interest on savings
7. How Certificates of Deposit and Series EE Savings Bonds work: calculate interest, compare to savings

D. Investments

1. Types of life insurance
2. Calculate premiums
3. Compute cash values and amounts of paid-up insurance

4. Understand bond quotations
 5. Calculate interest payments on bonds, accrued interest, and net proceeds from sale
 6. Read stock quotations in newspaper
 7. Compute stocks costs
 8. Compute dividends
 9. Find the capital gain or loss
- E. The Small Business
1. Need for owner capital in starting a business
 2. Know the terms *assets* and *liabilities*
 3. Construct a balance sheet showing net worth
 4. Construct an income statement
 5. Do ratio analysis
 6. Compute payroll deductions and net pay
 7. Compute the break-even point in manufacturing
 8. Know the terminology for working with trade discounts: calculate net prices from list
 9. Compute cost of storage space for goods
 10. Determine reorder time and number
- F. Final Review and evaluation

IV. Instructional Materials

- A. Consumer Mathematics - Abeka Book Publications 1984
- B. Consumer Mathematics Skills and Review Exercise - Abeka Publishing 1984

V. Teaching Methods

- A. Student's teacher-directed reading of text and completion of daily exercises
- B. Parent-help as needed

VI. Evaluation

- A. Components
 1. Graded quizzes and tests
 2. Daily skill exercises and review
 3. End-of-semester test
 4. Final exam
- B. Grading Scale
 1. 90-100 A
 2. 80-89 B
 3. 70-79 C
 4. 60-69 D