

Business Management and Administration Program
Blount County Schools
Southeastern School, Reamlap AL 35133
Mrs. Amy Gunn
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Business & Consumer Mathematics

Welcome to Business & Consumer Mathematics!

My goal is to ready each student for a successful future, regardless of college or career plans. To ensure this goal is achieved, students, parents and I all have important roles and responsibilities. Please make me aware of any concerns you may have regarding your student's success.

Communication, Website, and Conference Information

- Each school day, I will check my email during my planning period. Please understand there may be times that your message is not received until the following school day, but I will be prompt in answering.
- Coursework and details are available in Schoology. Please create parent/guardian accounts to stay updated with my expectations for students.
- Please visit my school website at <http://agunn04.wix.com/shs-business>.
- I am available for conferences during my planning period or after school, provided prior arrangements have been made. You may contact me through the email address provided above.

Course Description

Business & Consumer Mathematics is designed to build upon previous knowledge and skills to solve a variety of arithmetic problems that are commonly found in personal and business financial situations. Students develop the skills necessary to solve mathematical problems, analyze and interpret data, and use data to make sound decisions in business and personal financial situations. Topics include taxation, savings and investments, credit management, cash management, and financial statements.

No prerequisite is required for this course.

Program/Instructional Delivery Plan

All course information and coursework are detailed in the Schoology Learning Management System which students can access once enrolled in the course. Other online applications will be utilized to ensure content delivery.

Course Goals

Each foundational and content standard completes the stem “Students will ...”

Foundational Standards Unit

1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
4. Advocate and practice safe, legal, responsible, and ethical use of information and technology tools specific to the industry pathway.
5. Participate in a Career and Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
6. Discuss and demonstrate ways to value diversity.

Consumer Credit Unit

1. Assess the costs associated with making major purchases. Examples: automobile, appliance, house, furniture
 - a. Calculate sales tax and compute total price with sales tax.
 - b. Compute total purchase price with interest and finance charges added.
 - c. Use data-informed decision-making to identify the costs of obtaining a loan and select the least expensive option.
 - d. Discuss repayment requirements and compute finance charges for single payment loans.
 - e. Calculate and explain installment loan costs. Examples: amount financed, installment price, finance charge, installment payment
 - f. Compare costs of leasing and buying large-ticket items.
2. Research terms and conditions for at least two major credit cards, compute the costs of financing a purchase over various time periods, and list and describe the advantages and disadvantages of using each card.
 - a. Find and explain the estimated annual percentage rate (APR) for a credit card, using a table.
 - b. Determine which credit card is more economical by calculating and explaining the finance charges and new balance using the average daily balance method.
 - c. Locate and use amortization tables to determine payment, interest, and balance for loans with a variety of interest rates and repayment times.
 - d. Compare and contrast annual and monthly percentage rates for credit cards and loans.
 - e. Compare and contrast the benefits of using a credit card or paying cash for a purchase for both the purchaser and the business.
3. Determine the impact of credit ratings on the cost of goods and services purchased on credit.
 - a. Calculate the components of a monthly mortgage payment including down payment, principal, interest, taxes, and insurance (PITI) and discuss what percentage of a person's income should be set aside for a home purchase.
 - b. Prepare a partial amortization schedule of a mortgage using varying credit ratings.
 - c. Compare the total interest paid on a 15-year and a 30-year mortgage at various credit ratings.
 - d. Compare and contrast interest-only, fixed-rate, and adjustable-rate loans using various credit ratings.
 - e. Explain credit ratings and credit reports and why they are important to consumers.
 - f. Research rights and responsibilities of consumers established by credit legislation. Examples: truth-in-lending, fair credit reporting, equal credit opportunity, fair debt collection

Markup and Discounts Unit

4. Interpret different types of discounts and their effects on personal and business expenses.
 - a. Identify various types of discounts.
 - b. Calculate chain, trade, and cash discounts and net selling prices of items using each type of discount.
 - c. Determine the price of products after applying coupons, sales incentives, and/or rebates.
5. Assess and calculate markup or markdown.
 - a. Determine the rate of the markup or markdown.
 - b. Find the cost, markup, or selling price when any two of the three are known.
 - c. Convert markups from cost to selling price or from selling price to cost.

Data Analysis and Reporting Unit

6. Analyze business data to discover trends for strategic decision-making.
 - a. Calculate mean, median, and mode in business data, and use results to measure progress toward business goals. Examples: salary, pricing
 - b. Distinguish between a simple average and a weighted average and calculate each.
 - c. Make predictions and decisions based on data and explain reasoning.
 - d. Explain how using statistics, probability, and systems of measurement impacts business decisions.
 - e. Analyze lending methods including construction loans, second mortgages, refinancing, and investment capital.
7. Display business data in tables, charts, graphs, and infographics.
 - a. Identify and construct various types of graphs and charts to interpret business data.
 - b. Compile and arrange numerical facts in an organized manner in a table, chart, or infographic to support a business presentation and/or to validate purchase decisions.
 - c. Evaluate and solve practical problems involving business and consumer applications, including business tax forms, pricing for profit, sales records, income and expenses, profit and loss, double-entry bookkeeping, debits, and credits.
 - d. Analyze journals, statements, ratio analysis, percent analysis, and inventory turnover.

Payroll Unit

8. Create an individual payroll and earnings record for a salaried and an hourly worker.
 - a. Calculate pay based on piecework, salary, commissions, and graduated commissions.
 - b. Calculate gross pay based on an hourly wage with an overtime policy.
 - c. Calculate an employee's net earnings per pay period using varied amounts for health insurance, FICA, and tax deductions.
 - d. Explain the costs and benefits of payroll-deducted flexible benefit packages. Examples: IRA, 401(k), flexible spending plans
9. Describe and calculate federal and state taxes associated with employee payroll.
 - a. Find the federal tax withholding amount per paycheck for an individual, using IRS tax tables and IRS percentage method.
 - b. Calculate an employee's Social Security tax and Medicare tax per paycheck.
 - c. Determine an employer's total deposit for withheld income tax, Social Security tax, and Medicare tax per pay period and quarterly for a group of employees.
 - d. Compute business expenses related to employees. Examples: benefits, disability insurance, travel, employee training

Interest Rates Unit

10. Examine rates, amount of interest, and proceeds of bank discounts for various loans and explain how variations in these factors impact financial outcomes and decisions.
 - a. Calculate simple interest using the simple interest formula for a personal and a business loan based on various credit scores.
 - b. Calculate any single variable (principal, interest rate, amount of interest, or time) given the other three to evaluate optimal conditions for pursuing a bank loan.
 - c. Explain the process of discounting a promissory note and calculate the proceeds of a discounted promissory note.
11. Explain maturity value and find the maturity value of a loan.
 - a. Compute compound interest on a loan by compounding annually.
 - b. Create an amortization table in spreadsheet software showing interest compounded daily using varying rates and terms.

Investments Unit

12. Explain investment terms including risk, yields, price to earnings (P/E) ratio, and rate of return.
 - a. Explain the effects of compounding in an investment and lending environment.
 - b. Compare investment opportunities and make mathematical comparisons of investment alternatives.
 - c. Explain net present value and describe how to calculate the net present value of an investment. Examples: certificate of deposit, savings account, stocks, mutual funds
 - d. Determine stock yield, earnings per share, and price to earnings ratio for several stocks.
 - e. Calculate the anticipated rate of return on specific investments (ROI) and savings accounts using various factors including simple or compound interest, dividends, and fees.
 - f. Calculate a stock's percentage price change over a period of several weeks.
 - g. Calculate a stock's dollar price change over a period of several weeks.
 - h. Complete a stock transaction form for buying and selling stocks.
 - i. Describe how common stocks are valued.

Personal Taxes Unit

13. Describe and prepare federal tax documents for varying household types.
 - a. Complete 1040 EZ Federal Income Tax Forms.
 - b. Determine the need for and prepare a 1040A using the required documentation for varying households.
 - c. Complete basic tax forms for business and personal use utilizing strategies to maximize benefits and determine the results of the selected strategies. Examples: W-2, W-4
14. Discuss and calculate property taxes based on local percentages and guidelines including assessed values and homestead exemptions.

Bank Records Unit

15. Outline the historical progression of banking institutions and how changes affected customers' costs for services. Examples: traditional banks, online banks, credit unions
16. Complete routine banking procedures to manage finances efficiently.
 - a. Utilize business and personal data to write checks, prepare deposits, and prepare withdrawal slips without going over budget or incurring penalty fees.
 - b. Utilize methods for maintaining a check register including proper procedures for ATM usage (without incurring usage fees) and automatic payment withdrawals.
 - c. Reconcile bank statements.
 - d. Explain fees associated with banking accounts. Examples: cashier's checks, overdraft penalties, minimum balance requirements
17. Describe features, advantages, and disadvantages of mobile and online banking. Examples: electronic transfers, paperless deposits, bill pay, mobile apps

Insurance Unit

18. Identify and compare types of insurance and compute the costs and benefits of selected plans. a. Explain insurance premium charts, determine the cost of a particular policy, and explain the reasons for selecting one policy over the others. b. Evaluate proposals for automobile insurance and determine costs of both compulsory and optional coverage. c. Review health insurance coverage plans, calculate premiums based on selected options, and discuss the rationale (mathematical or personal) for selecting a particular option. d. Assess the effects of deductibles on policy costs and the ramifications of selecting a higher or lower deductible.

Ratios and Proportions Unit

19. Discuss the terms ratio and proportion and explain how they are used for calculations in different business situations. a. Use ratios to evaluate profitability, efficiency, and leverage. b. Use ratios to express the quantitative relationship between two amounts of inventory and explain how the business will be impacted by inventory figures. c. Analyze and explain methods for solving business problems involving proportions and how the results lead to increased productivity. Examples: scaling, finding equivalent ratios d. Use ratios, proportions, and percentages to solve problems involving financial calculations.

Depreciation Unit

20. Compare and contrast the straight-line method, declining balance method, sum of the years digits method, and the modified accelerated cost recovery system (MACRS) method to calculate depreciation. a. Calculate the straight-line depreciation of plant assets for a year and describe the benefits and/or drawbacks of using this method. b. Calculate the depreciation expense on plant assets by the sum of the years digits and declining balance methods and explain the benefits of using each method. c. Calculate the modified accelerated cost recovery system depreciation of plant assets and describe its benefits. d. Use the straight-line depreciation method to find the value of an asset.

Inventory Unit

21. Tabulate costs associated with inventory to support business productivity. a. Explain effective management of inventory. b. Calculate the cost and value of inventory. c. Analyze the rate of inventory turnover. d. Determine the value of ending inventory using average cost (weighted average), first in first out (FIFO), and last in first out (LIFO) and present scenarios in which each method is preferred.

Business Calculations Unit

22. Calculate and assess future costs of operation. a. Estimate transportation costs. b. Estimate equipment maintenance costs. c. Calculate future equipment costs including taxes and transfer costs. d. Analyze and track business income. e. Analyze business income statements. f. Analyze staffing costs and prepare staffing cost estimates, including recruitment, training, and hiring. g. Explain the history and principles of lean manufacturing. h. Find the inventory break-even point in a given scenario.

Career and Technical Student Organization Integration

Career and technical student organizations (CTSOs) are integral, cocurricular components of each career and technical education course. These organizations serve as a means to enhance classroom instruction while helping students develop leadership abilities, expand workplace-readiness skills, and broaden opportunities for personal and professional growth.

Future Business Leaders of America (FBLA) is the CTSO for this course.

FBLA dues are \$14 for the school year and an optional t-shirt may be purchased for \$10.

Embedded Numeracy Anchor Assignment

Mathematics and numeracy strategies are incorporated into CTE assignments and all aspects of learning in the CTE classroom, with frequent assignments that require students to apply mathematics skills to authentic problems found in the CTE field of study.

FBLA members compete in the national Knowledge Matters Virtual Business Challenge: Personal Finance which employs financial vocabulary and activities such as investing and online banking.

In this course, students will complete an anchor assignment which demonstrates the integration of mathematics and mathematic vocabulary appropriate to the program area.

Business Industry Data Analysis Project – 200 points

Students will research 6 business industry careers to compare and contrast wages and employment trends. Students will prepare a formal summary of their research findings in an MLA format essay and include tables, charts, and graphs to support their findings of the median hourly wages and median annual wages.

Embedded Literacy Anchor Assignment

Each course in the CTE program integrates reading and writing strategies into all aspects of learning in the CTE classroom. Assignments frequently require students to read, write, and make presentations related to the CTE field of study.

FBLA members compete in the national Knowledge Matters Virtual Business Challenge: Personal Finance which employs technical reading skills to complete various financial forms and documents.

In this course, students will complete an anchor assignment which demonstrates the integration of technical reading and writing appropriate to the program area.

Business Industry Career Opportunities Research Project – 200 points

Students will research 6 business industry careers to compare and contrast the various knowledge, skills, abilities, personality, technology, and educational and credentialing requirements to be successful in those careers. Students will prepare a formal summary of their research findings in an MLA format essay.

Available Industry Recognized Credentials Offered

Students will have the opportunity to demonstrate the skills needed to get the most out of Microsoft Office 2019 by earning a Microsoft Office Specialist certification in a specific Office program. MOS certification is offered for Word, Excel, PowerPoint, Access, and Outlook.

<u>Assessment Procedures</u>		<u>Grading Scale</u>
Students will be assessed at the completion of each unit in one or more of the following ways:		A 90-100 B 80-89 C 70-79 D 60-69 F 59 or below
<ul style="list-style-type: none"> Teacher Observations Performances Tests Checklists Rubrics Online Activities Scenarios Oral Presentations Research Papers Portfolio Journal Reflections Projects 	<ul style="list-style-type: none"> Research Reports Performance Tasks Production Exams Objective Tests Group Presentations Case Studies Research Projects Debate Safety Tests Simulations Appropriate Business Dress Participation Point Systems 	<u>Grading Policy</u> Grades are based on a points system. Typically, assessments and projects will be worth up to 200 points; classwork, quizzes and homework will be worth up to 100 points.

Supply List: CTE Business Management and Administration Program

Teacher: Amy Gunn

Required Supplies and Fees

Pens
Folder with pockets and fasteners
Notebook paper

Optional Supplies and Wish List Items

Kleenex or Paper Towels
Copy Paper or Cardstock
Clorox Wipes or Monitor Wipes
Earbuds
USB Flash Drive