

SPRINGFIELD PUBLIC SCHOOLS
BUSINESS MATHEMATICS

Course Description

Students interested in business-related careers and consumer applications will find this course useful. Topics will include the mathematics of business operations and record keeping, banking, purchasing, and sales. Situations involving discounts, commissions, interest, taxes, and depreciation will be studied. Topics also include consumer applications. Calculators will be used as problem-solving tools.

Course Rationale

Business Mathematics will allow the student to learn business and consumer concepts they will use throughout their lives. The student will be involved in learning how to communicate information mathematically, solve problems from a real-world context and justify the solutions to problems.

Major Instructional Goals

The intent of Springfield R-12 High School Mathematics Program is to explore, investigate, and understand the importance of mathematics through real-world experiences. In mathematics, students will acquire the knowledge and skills to problem solve, communicate, reason, create models, and make connections. Students will:

1. Apply concepts of **Number and Operations** including:
 - a. Maintain a checking account including reconciling a bank statement. (MA1; 4.1- 4.8)
 - b. Calculate trade and cash discounts. (MA1; 1.10, 2.6, 3.2, 4.8)
 - c. Compute payroll. (MA1; 1.10, 2.6, 3.2, 4.8)
 - d. Solve problems related to cost of credit: installment buying, revolving charge, and credit card accounts. (MA1; 1.10, 2.6, 3.2, 4.8)
 - e. Determine the cost of home or business ownership (utilities, transportation, advertising). (MA1; 4.1-4.8)
 - f. Calculate premiums on home, life, and auto insurance. (MA1; 1.6, 3.8)
 - g. Compute sales, excise, and property tax. (MA1; 3.1, 3.2, 3.3, 3.4, 3.8)
 - h. Solve problems by mental computation methods or the appropriate technology. (MA1; 1.6, 1.8, 1.10, 2.6)

2. Apply concepts of **Algebraic Relationships** including:
 - a. Solve problems related to credit cards: monthly payments, interests, and credit card transactions from the merchant's point of view. (MA1; 2.1, 3.6, 3.8)
 - b. Solve problems related to markup and markdown. (MA1; 3.8)
 - c. Solve problems related to interest: simple interest, compound interest, annuities, and promissory notes. (MA1; 4.1-4.8)
 - d. Calculate the cost of inventory using different techniques. (MA1; 1.10, 3.8)
 - e. Investigate and solve problems using a variety of different methods for determining depreciation. (MA1; 3.2, 3.3, 3.8)

3. Apply concepts of **Data Analysis and Probability** including:
 - a. Solve problems dealing with stocks and bonds. (MA3; 3.8, 4.1)
 - b. Read, analyze, and interpret financial records. (MA3; 1.1, 1.8)
 - c. Use statistical analysis to study marketing and business trends. (MA3; 1.1, 1.8)
 - d. Investigate a career or develop the criteria for starting a business and communicate this information in writing. (MA3; 4.1-4.8)