

Business Math

This course covers the topics shown below.
Students navigate learning paths based on their level of readiness.
Institutional users may customize the scope and sequence to meet curricular needs.

Curriculum (123 topics + 7 additional topics)

- Mathematic Foundations (33 topics)
 - Whole Numbers (6 topics)
 - Whole number place value
 - Rounding whole numbers
 - Adding whole numbers
 - Subtracting whole numbers
 - Multiplying whole numbers
 - Dividing whole numbers
 - Fractions (12 topics)
 - Types of fractions and conversion procedures
 - Reducing fractions to lowest terms
 - Raising fractions to higher terms
 - Adding and subtracting fractions with the same denominator
 - Adding fractions with different denominators
 - Subtracting fractions with different denominators
 - Multiplying fractions
 - Dividing fractions
 - Adding mixed numbers
 - Subtracting mixed numbers
 - Multiplying mixed numbers
 - Dividing mixed numbers
 - Decimals (8 topics)
 - Decimal place value
 - Rounding decimals
 - Adding decimals
 - Subtracting decimals
 - Multiplying decimals
 - Dividing decimals
 - Conversion from fraction to decimal
 - Conversion from decimal to fraction
 - Solving for the Unknown (2 topics)
 - Solving equations, basic
 - Solving equations, advanced
 - Business Statistics (5 topics)
 - Mean and median
 - Frequency and weighted mean
 - Bar graphs
 - Interpreting line graphs
 - Interpreting circle graphs
- Percents and Their Applications (31 topics)
 - Percents (8 topics)
 - Converting decimals to percentages
 - Converting percentages to decimals
 - Converting percentages to fractions
 - Converting fractions to percentages
 - Portion formula: Solving for portion
 - Portion formula: Solving for rate
 - Portion formula: Solving for base
 - Calculating percent decreases and increases
 - Discounts: Trade and Cash (6 topics)
 - Single trade discounts and net price
 - Chain discounts: Net price equivalent rate
 - Cash discount: Basic calculation
 - Cash discount: Ordinary and receipt of goods dating methods
 - Cash discount: EOM dating method

- Invoices, trade discounts, and cash discounts
- **Markups and Markdowns (6 topics)**
 - Markup based on cost or selling price
 - Markup based on cost: Finding the selling price
 - Markup based on cost: Finding the cost
 - Markup based on selling price: Finding the selling price
 - Markup based on selling price: Finding the cost
 - Markdown
- **Payroll (8 topics)**
 - Hourly gross pay with overtime
 - Gross pay with straight commission and draw
 - Gross pay with variable commission scale
 - Gross pay with commission and salary
 - FICA with no ceiling
 - FICA with ceiling
 - Calculating federal income tax withholding
 - FICA, federal tax withholding, and net pay
- **Sales, Excise, and Property Tax (3 topics)**
 - Sales taxes
 - Excise taxes
 - Property tax
- **Interest (17 topics)**
 - **Simple Interest (3 topics)**
 - Simple interest and maturity value
 - Exact and ordinary methods for simple interest and maturity value
 - Solving for principal, rate, or time in simple interest problems
 - **Promissory Notes, Simple Discount Notes, and the Discount Process (2 topics)**
 - Structure of promissory notes: Effective interest rate and simple discount note
 - Discounting an interest-bearing note before maturity
 - **Compound Interest and Present Value (5 topics)**
 - Computing compound interest with the simple interest formula
 - Compound interest for daily compounding
 - Compound interest for annual, semiannual, and quarterly compounding
 - Nominal interest rate versus annual percentage yield
 - Present value tables
 - **Annuities and Sinking Funds (3 topics)**
 - Ordinary annuity
 - Present value of an ordinary annuity
 - Sinking funds
 - **Installment Buying, Rule of 78, and Revolving Charge Credit Cards (4 topics)**
 - Amount financed, finance charge, and deferred payment
 - Cost of installment buying: Computing the APR
 - Cost of installment buying: Computing the monthly payment
 - Revolving charge credit cards
- **Personal Finance (20 topics)**
 - **Banking (3 topics)**
 - Checking accounts
 - Bank statement and reconciliation process: Basic
 - Bank statement and reconciliation process: Advanced
 - **The Cost of Home Ownership (3 topics)**
 - Monthly mortgage payment tables
 - Total cost of interest for a mortgage
 - Amortization schedule: Interest, principal, and new mortgage balance
 - **Life, Fire, and Auto Insurance (6 topics)**
 - Life insurance premiums
 - Insurance nonforfeiture values
 - Fire insurance premiums
 - Canceling fire insurance
 - Compulsory auto insurance
 - Optional auto insurance
 - **Stocks, Bonds, and Mutual Funds (8 topics)**

- Reading stock quotations
- Calculating return on stock investment
- Stock yield, earnings per share, and price-earnings ratio
- Stock dividends
- Reading bond quotations
- Calculating bond yields
- Net asset value of a mutual fund
- Investment in a mutual fund
- Business Finance (22 topics)
 - How to Read, Analyze, and Interpret Financial Reports (9 topics)
 - Balance sheet: Merchandising
 - Balance sheet: Service
 - Vertical analysis of a balance sheet
 - Income statement: Merchandising
 - Income statement: Service
 - Vertical analysis of an income statement
 - Horizontal analysis of financial statements
 - Financial projections
 - Financial ratio analysis
 - Depreciation (5 topics)
 - Straight-line depreciation: Full year
 - Straight-line depreciation: Partial year
 - Units-of-production depreciation
 - Declining-balance depreciation
 - Modified accelerated cost recovery system
 - Inventory and Overhead (8 topics)
 - Inventory: Specific identification
 - Inventory: Weighted-average cost method
 - Inventory: FIFO
 - Inventory: LIFO
 - Retail method of inventory
 - Gross profit method of inventory
 - Inventory turnover
 - Distribution of overhead
- Other Topics Available(*) (7 additional topics)
 - Percents and Their Applications (3 topics)
 - Chain discounts: Single equivalent discount rate
 - Employer tax responsibilities
 - Actual sales before taxes
 - Interest (3 topics)
 - The U. S. Rule: Making partial note payments before due date
 - Annuity due
 - Paying off installment loans before due date
 - Business Finance (1 topics)
 - Sum-of-the-years'-digits depreciation

***Other Topics Available** By default, these topics are NOT included in the course, but can be added using the content editor in the Teacher Module.