

Virginia Western Community College

MTH 132

Business Mathematics

Prerequisites

MTE 1-3 or MDE 10

VCCS Course Description

Provides instruction, review, and drill in percentage, cash and trade discounts, mark-up, payroll, sales, property and other taxes, simple and compound interest, bank discounts, loans, investments, and annuities. This course is intended for occupational/technical programs.

Semester Credits: 3

Lecture Hours: 3

Required Materials

Textbook

Practical Business Math Procedures, Slater, Wittry, 14th Edition, McGraw Hill Education.
ISBN: 9781265428105

Other Required Materials:

Calculator

VCCS COURSE OUTCOMES

- Communication
 - Interpret and communicate quantitative information and mathematical and statistical concepts using language appropriate to the context and intended audience.
- Problem Solving
 - Make sense of problems, develop strategies to find solutions, and persevere in solving them.
- Reasoning
 - Reason and draw conclusions or make decisions with quantitative information.
- Evaluation

- Critique and evaluate quantitative arguments that utilize mathematical, statistical, and quantitative information.
- Technology
 - Use appropriate technology in a given context.

Note to Instructors

N/A

VCCS TOPICAL DESCRIPTIONS

Communication and basic skills

- Solve application problems by interpreting the materials presented, including determining the nature and extent of the information needed, and present the answer in standard English.
- Estimate and consider answers to mathematical problems in order to determine reasonableness.
- Correctly calculate sums, differences, products and quotients of whole numbers, fractions and mixed numbers, and decimal numbers without the use of a calculator.
- Perform basic calculator operations
- Solve a formula for any specified variable.
- Convert decimal numbers and fractions to and from percents.

Banking Applications

- Solve word problems using the basic percentage formula.
- Identify the component parts of a check, check stub and deposit slip.
- Perform simple banking transactions, rectify bank statements.
- Calculate simple interest, compound interest and simple discount.
- Use the formulas for maturity value and present value for simple interest loans.
- Use tables to calculate present value and future value.
- Find the monthly mortgage payment, interest and PITI and prepare a partial amortization schedule.
- Calculate sales, property, loans with closed-end credit and open-end credit

Taxes

- Calculate Payroll, income taxes.
- Calculate gross earnings based on salaries, commissions and wages.
- Calculate overtime earnings for wages, salaries, and commissions.
- Calculate State withholding taxes.
- Calculate FICA and Medicare taxes for employees and self-employed individuals.

- Calculate Federal withholding taxes using the wage bracket and percentage methods.
- Calculate an employer's Federal Tax Liability.

Business Applications

- Complete an invoice.
- Calculate the selling price for an item using markup and markdown.
- Use the basic percentage formula to calculate trade, chain, quantity and cash discounts, and net cost.
- Use complements to calculate net cost.
- Calculate the equivalent single discount for a series discount.
- Determine the last date of a discount period.
- Calculate the selling price for an item using markup and markdown.
- Determine the break-even point and the amount of a profit/loss.

VWCC AND DISCIPLINE SPECIFIC TOPICAL DESCRIPTIONS

Chapter 1: Whole Numbers

Chapter 2: Fractions

Chapter 3: Decimals

Chapter 4: Banking

Chapter 5: Solving for the Unknown

Chapter 6: Percents and their Applications

Chapter 7: Discounts: Trade and Cash

Chapter 8: Markups and Markdowns: Perishables and Breakeven Analysis

Chapter 9: Payroll

Chapter 10: Simple Interest

Chapter 11: Promissory Notes, Simple Discount Notes, and the Discount Process

Chapter 12: Compound Interest and Present Value

Chapter 13: Annuities and Sinking Funds

Chapter 14: Installment Buying

Chapter 15: The Cost of Homeownership

Chapter 19: Sales, Excise, and Property Taxes

[TITLE IX STATEMENT](#)

[ADA STATEMENT](#)

