



# SCHOOL OF STEM SYLLABUS



**TERM:**

**COURSE CODE:** MAT-103

**COURSE TITLE:** Business Mathematics

**DAY(S) AND TIME(S):**

**LOCATION:**

**INSTRUCTOR:**

**OFFICE HOURS:**

**OFFICE LOCATION:**

**EMAIL:**

**PHONE:**

**COURSE PREREQUISITE:** Complete MAT-071 AND MAT-073, OR ANY MAT 100 OR ABOVE

**CREDITS:** 3

## **COURSE DESCRIPTION:**

Fundamental principles of mathematics are applied to business situations. Topics that will be covered include Bank Reconciliation, proportions, statistical measurement, trade, and cash discounts. In addition, the mathematics of buying, pricing, and selling, computation of payroll, interest, and Consumer credit are discussed. Financial transactions involving compound interest, future value, present value annuities, and mortgages will be explained.

## **STUDENT LEARNING OUTCOMES:**

This course will:

1. Enhance the student's basic mathematical ability
2. Provide students with a thorough understanding of the mathematics involved in business
3. Students will gain personal knowledge of the mathematics which affects them as consumers and wage earners
4. Recognition of the planning that must go into business decisions and how they are monitored
5. Collect and organize numerical data; identify and apply appropriate mathematical techniques; interpret and present data in a variety of formats

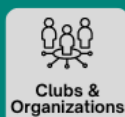
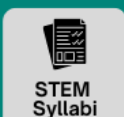
## **TEXTBOOK AND SUPPLEMENTAL MATERIALS:**

Cheryl Cleaves, Margie Hobbs, and Jeffrey Noble. Business Math. Tenth Edition.  
Pearson  
ISBN: 978-0-13-301120-3

## **GRADING POLICY:**

## **STEM STUDENT HUB**

Information & Resources tailored towards students taking any STEM courses



|                    |     |
|--------------------|-----|
| Test 1             | 20% |
| Test 2             | 20% |
| Test 3             | 20% |
| Homework & Quizzes | 10% |
| Final Exam         | 30% |

**SAMPLE COURSE SCHEDULE:**

| Session | Topic   |
|---------|---|
| 1       | Review: Place Value and Our Number System * Operations with Whole Numbers *Fractions<br>*Adding, Subtracting, Multiplying and Dividing Fractions *Decimals and the Place-Value System |
|         | *Operations with Decimals * Decimal and Fraction Conversions  |
| 2       | *Checking Account Forms * Bank Statements * Bank Reconciliation   |
| 3       | *Equations *Using Equations to Solve Problems *Percent Equivalents<br>*Solving Percent Problems   |
| 4       | *Statistics *Measures of Central Tendency *Frequency Distribution and Graphs<br>*Measures of Dispersion   |
| 5       | *Trade and Cash Discounts *Net Price and the Trade Discount<br>*Net Price and the Trade Discount Series *Net Amount and the Cash Discount   |
| 6       | *Markup Based on Cost *Markup based on Selling Price and Markup Comparisons   |
| 7       | *Markdown, Series of Markdowns, and Perishables <b>Midterm</b>  |
| 8       | *Payroll * Gross Pay * Payroll Deduction *The Employer's Payroll Taxes  |
| 9       | *The Simple Interest Formula *Ordinary and Exact Time and Interest * Promissory Notes   |
| 10      | *Consumer Credit *Installment Loans and Closed-End Credit<br>*Paying a Loan Before it is Due: The Rule of 78 *Open-End Credit   |
| 11      | *Compound Interest and Future Value *Present Value *Future Value of an Annuity<br>*Sinking Funds and the Present Value of an Annuity  |
| 12      | *Mortgages *Mortgage Payments *Amortization Schedules   |
| 13      | *Depreciation * Depreciation Methods for Financial Statement Reporting<br>* Depreciation Methods for IRS Reporting  |
| 14      | *Inventory *Specific Identification Method *First in First out (FIFO)   |

|    |  |
|----|--|
|    | * Last in First out (LIFO) *Retail Inventory Method *Gross Profit Method<br>*Turnover and Overhead |
| 15 | <b>Final Exam</b>  |

**HCCC POLICIES, STATEMENTS, AND SERVICES:**

<https://www.hccc.edu/administration/academic-affairs/syllabus-addendum.html>



