

MATH 1600 BUSINESS MATHEMATICS

3 Credits

Offered in Lab or Lecture Format

Prerequisite required (MATH 0500 with a grade of C or better
or Appropriate Placement-Test Score)

Revised 6/22/93

SYLLABUS

I. FUNDAMENTAL PREPARATION

- **A. Review of fractions and decimals
- **B. Review of percent
 1. Definition
 2. Conversions
 - a. Fraction and decimal to percent
 - b. Percent to fraction and decimal
 3. Use of formula $P = R \times B$
 - a. To find P
 - b. To find B
 - c. To find R
 - d. To find % increase or decrease
- ***C. Equations
 1. Solving basic equations
 2. Converting word problems into formulas
 3. Solving business equations

II. SIMPLE INTEREST

- A. Use of $I=PRT$ and $S=P+I$ to find I and S
- B. Ordinary and exact interest, approximate and exact time
- C. Use of $I=PRT$ to find P,R,T
- D. Use of $P = \frac{S}{1 + RT}$ to find present value

III. COMPOUND INTEREST

- A. Compound amount and interest
- B. Present value

IV. BANK DISCOUNT

- A. Use of formulas to find discount, proceeds, discount rate, time and maturity value
- B. Discounting of interest-bearing notes
- C. Rediscounting of non-interest bearing notes

V. TRADE DISCOUNT

- A. Computation of net price
- B. Computation of % paid and single discount equivalent to a series discount

VI. CASH DISCOUNT

- A. Discounts given in terms of trade
- B. EOM, ROG, Extra, As-of dating
- C. Cash discounts problem
 - 1. With and without freight charges
 - 2. With partial payments
- *D. Borrowing to take advantage of cash discount

VII. MARKUP AND MARKDOWN

- A. Computation of cost, markup, selling price, % markup
- B. % markup on cost problems
 - 1. Cost given
 - 2. Selling price given
- C. % markup on selling price problems
 - 1. Cost given
 - 2. Selling price given
- D. Markdown problems

***VIII. TAXES**

- A. Sales tax
- B. Property tax
 - 1. Computing tax rate
 - 2. Expressing tax rate
 - 3. Computing tax

***IX. MULTIPLE PAYMENT PLANS**

- A. U.S. Rule
- B. Installment plans

*Optional

**The review of arithmetic should be limited to no more than 15% of course time.

***Optional algebra approach