

Las Positas College
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Course Outline for BUSN 55

BUSINESS MATHEMATICS

Effective: Fall 2007

I. CATALOG DESCRIPTION:

BUSN 55 — BUSINESS MATHEMATICS — 3.00 units

Mathematics to solve typical business problems including simple interest, compound interest, installment sales, trade and cash discounts, markon percents, pricing, discounting notes and drafts, depreciation, taxes, insurance, statistics, stocks and bonds, and distribution of ownership and profits.

3.00 Units Lecture

Grading Methods:

Discipline:

	MIN
Lecture Hours:	54.00
Total Hours:	54.00

II. NUMBER OF TIMES COURSE MAY BE TAKEN FOR CREDIT: 1

III. PREREQUISITE AND/OR ADVISORY SKILLS:

IV. MEASURABLE OBJECTIVES:

Upon completion of this course, the student should be able to:

- A. The principal, interest, maturity value, interest rate or time of a simple interest loan;
- B. The principal, interest, maturity value, interest rate or the principal, interest, maturity value, interest rate or time of a compound interest investment;
- C. Trade and cash discounts;
- D. The net cost of an invoice;
- E. The true interest rate on an installment purchase of a loan;
- F. The monthly payment required on a loan;
- G. The average daily balance and service charge on an open-end account;
- H. Components of an income statement and balance sheet;
 - I. The amount and rate of depreciation of an asset;
 - J. The interest earned on a savings account;
- K. Cost and return on investments in stocks and bonds;
- L. The proceeds of a discounted note;
- M. The unearned interest when a contract is paid off before maturity;
- N. The amount and percent of markup on merchandise;
- O. The present value of ordinary annuities and of annuities due;
- P. Gross payroll, employer and employee taxes;
- Q. Insurance coverage and settlements.

V. CONTENT:

- A. Simple interest
 - 1. ordinary interest
 - 2. reverse operations
 - 3. maturity value-present value
- B. Simple discount
 - 1. discount and proceeds of interest bearing notes
 - 2. other discount formulas
- C. Compound interest
 - 1. reverse operations
 - 2. present value
 - 3. daily and continuous compounding
- D. Consumer credit
 - 1. open-end credit
 - 2. installment plans
 - 3. annual percentage rate by table and formula
 - 4. rule of 78
- E. Purchase discounts and markup
 - 1. trade discounts
 - 2. cash discounts

- 3. markup based on cost or selling price
- F. Financial statements
 - 1. income statement
 - 2. balance sheet
- G. Annuities
 - 1. ordinary annuities
 - 2. annuities due
- H. Cost of real property ownership
- I. Life, fire, and auto insurance
- J. Sinking funds
- K. Basic business statistics
- L. Payroll and payroll taxes

VI. METHODS OF INSTRUCTION:

- A. **Lecture** -
- B. **Discussion** -
- C. Tests and final examination
- D. In class problem solving
- E. Homework Problems

VII. TYPICAL ASSIGNMENTS:

- A. Analytical problem: 1. On December 31, the Chicago Sun-Times announced that Dean Foods will buy Purity Dairies. Dean Foods has an option of selling \$5,000,000 in corporate bonds with a 5 1/2% rate payable semi annually over the next ten years. What is the present value of the corporate bond issue?

VIII. EVALUATION:

- A. **Methods**
 - 1. Exams/Tests
 - 2. Other:
- B. **Frequency**

IX. TYPICAL TEXTS:

- 1. Slater, Jeffrey *Practical Business Math Procedures*. Latest ed., McGraw-Hill, 0.
- 2. Brechner, Robert A *Contemporary Mathematics for Business and Consumers*. Latest ed., Dryden, 0.

X. OTHER MATERIALS REQUIRED OF STUDENTS:

- A. A four function calculator