COURSE OUTLINE

OXNARD COLLEGE

I. Course Identification and Justification:

A. Proposed course id: BUS R103
Banner title: Business Mathematics
Full title: Business Mathematics

Previous course id: BUS R103
Banner title: Business Mathematics
Full title: Business Mathematics

B. Reason(s) course is offered:
Students entering the study of business require basic skills in mathematics and problem solving. This course will provide students with elementary mathematical and analytical skills for studies in business and accounting. This course is one of the optional courses for the AS Degree in Business Management.

C. Reason(s) for change:
5 year course review and update.

D. Reason(s) for current outline revision:
Course Modification

II. Catalog Information:

A. Units:
Current: 3.00
Previous: 3.00

B. Course Hours:
1. In-Class Contact Hours:
Lecture: 52.5 Activity: 0 Lab: 0
2. Total In-Class Contact Hours: 52.5
3. Total Outside-of-Class Hours: 105
4. Total Student Learning Hours: 157.5

C. Prerequisites, Corequisites, Advisories, and Limitations on Enrollment:
1. Prerequisites
Current:

2. Corequisites
Current:
Previous:

3. Advisories:
Current:
MATH R011: Elementary Algebra
MATH R002: Transitional Mathematics II

Previous:
MATH R011: Elementary Algebra

4. Limitations on Enrollment:
   Current:
   Previous:

D. Catalog Description:

Current:
This course utilizes mathematical operations to solve practical business application problems. Topics include percent's with applications, cash and trade discounts, markup and markdowns, payroll, present value, annuities, installment buying, mortgages, stocks, bonds. A review of basic mathematics will be covered as needed.
Previous, if different:

E. Schedule Description:
Current:
This course provides the student with a comprehensive knowledge of the ways to solve various business problems using the formula and algebraic approach. Together, these objectives will allow the student to use the techniques learned to solve personal and business math problems.
Previous, if different:

F. Fees:
Current: $ None
Previous, if different: $

G. Field trips:
Current:
Will be required: [ ]
May be required: [X]
Will not be required: [ ]

Previous, if different:
Will be required: [ ]
May be required: [ ]
Will not be required: [ ]

H. Repeatability:
Current:
A - Not designed as repeatable
Previous:

I. Credit basis:
Current:
Letter graded only [x]
Pass/no pass [ ]
Student option [ ]

Previous, if different:
Letter graded only [ ]
Pass/no pass [ ]
Student option [X]

J. Credit by exam:
Current:
Petitions may be granted: [ ]

Petitions will not be granted: [X]

Previous, if different:
Petitions may be granted: [ ]
Petitions will not be granted: [ ]

III. Course Objectives:

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

A. Perform conversions of decimals, percentages, and fractions.
B. Explain trade and cash discounts.
C. Calculate dollar markups and markdowns based on selling price.
D. Calculate simple interest and maturity value.
E. Define compound interest and calculate effective rate.
F. Define an annuity and calculate future and present value of annuities and lump sums.
G. Explain the "rule of 78" and utilize to compute rebates and payoffs.
H. Distinguish and calculate between various types of home mortgages.
I. Define a mutual fund and calculate net asset value.

IV. Course Content:

A. Topics to be covered include, but are not limited to:
    1. Whole Numbers: How to Dissect and Solve Word Problems
        a. Use place values to read and write numeric and verbal whole numbers.
        b. Add, subtract, multiply, and divide whole numbers; check and estimate computations.
    2. Discounts: Trade and Cash
        a. Calculate single trade discounts with formulas and complements.
        b. Explain the freight terms FOB shipping point and FOB destination.
        c. Find list price when the net price and trade discount rate are known.
    3. Markup and Markdowns: insight into perishables
        a. Calculate dollar markup and percent markup on cost.
        b. Calculate cost when you know the selling price and percent markup on cost.
        c. Convert from percent markup on cost to percent markup on selling price and vice versa.
    4. Simple Interest
        a. Calculate simple interest and maturity value for months and years.
        b. Using the interest formula, calculate the unknown when the other two (principal, rate, or time) are given.
    5. Compound Interest and Present Value
        a. Calculate the compound amount and interest manually and by table lookup.
        b. Compare present value (PV) with compound interest (FV).
        c. Check the present value answer by compounding.
    6. Annuities and Sinking Funds
        a. Differentiate between contingent annuities and annuities certain.
        b. Calculate the present value of an ordinary annuity by table lookup and manually check the calculation.
    7. Installment buying, Rule of 78, and revolving charge credit cards
        a. Calculate the amount financed, finance charge, and deferred payments.
        b. Calculate the estimated APR by table lookup.
        c. Calculate the finance charges on revolving charge credit card accounts.

8. The cost of home ownership
    a. List the types of mortgages available.
    b. Calculate and identify the interest and principal portion of each monthly payment.
    c. Prepare an amortization schedule.
9. Stocks, bonds, and mutual funds
    a. Read and explain stock quotations.
    b. Calculate dividends of preferred and common stocks; calculate return on investment.
    c. Read and explain bond quotations.
    d. Compare bond yields to bond premiums and discounts.
    e. Explain the calculated net asset value and mutual fund commissions.

V. Methods of Instruction:
Methods may include, but are not limited to:

Other methods of instruction:
1. Faculty-guided review of problem solving using the formula for good form and balance.
2. Instructor-guided demonstration and interpretation of business problems as they relate to the mathematical formula.
3. In-class use and demonstration of business math to apply business transactions into the mathematical formula.
4. Faculty-guided lecture and demonstration of preparation and interpretation of financial problem solving.
5. Demonstration of computer-based software of business and financial problem solving.

VI. Methods of evaluation and assignments:
Methods of evaluation for degree-applicable courses:

A. Essays [X]
Problem-solving assignments (Examples: Math-like problems, diagnosis & repair) [X]
Physical skills demonstrations (Examples: Performing arts, equipment operation) [ ]

For any course, if "Essays" above is not checked, explain why.

B. Typical graded assignments (methods of evaluation):
1. Attendance and class participation including, but not limited to, the following:
    a. In-class exercises involving reflection, critical review, and analysis of business problems.
    b. Individual and/or group presentations of case studies and applied business concepts and principles.
2. Chapter tests:
    a. In-class quizzes to apply the components of the framework for business mathematics formula.
    b. Midterm and final exams to apply transactional analysis, input transactions.
3. Demonstration of skills learned:
    a. Completion of homework assignments of transactional analysis and problem solving.
    b. Objective exams of the business mathematics framework.
    c. Problem solving exams demonstrating preparation and interpretation of the mathematical formula.
4. Projects:

a. Identify and analyze ethical issues relating to business problem solving.
b. Interpret company activity, profitability with business mathematical tools.

C. Typical outside of classroom assignments:
1. Reading
a. Assignments will include instructor-generated assignments on content, form, and purpose of the business mathematical formula.
b. Textbook assignments for pre-class preparation in reading of chapters and assignments.
2. Writing
a. Answers to discussion questions in the text related to the business mathematics formula.
b. Summary and analysis of other readings on the interpretation of business problems.
c. Essays on assigned topics on ethical issues relating to business mathematics.
d. Essays on questions on exams on finance and business terminology.
3. Other
a. Assigned readings from the text and other sources as appropriate related to business problems.
b. Problem solving using business statements and documents.
c. Preparing for class discussion.
d. Financial and spreadsheet analysis.

V. Textbooks and Instructional Materials:
A. Textbooks/Resources, latest edition of:
1. Slater (2013). Practical Business Math Procedures (11th/e). McGraw-Hill/Irwin Publishers.
B. Other instructional materials:
1. Wall Street Journal
2. Newspaper such as: Los Angeles Times, New York Times, Pacific Coast Business Times.
3. Company websites as it relates to text and chapter outlines, such as Fidelity Investments; www.fidelity.com, US Treasury Department; www.treasury.gov, Realtor; www.realtor.com.
4. Financial Calculator

VI. Minimum Qualifications and Additional Certifications:
A. Minimum qualifications:
1. Accounting (Masters Required)
2. Business (Masters Required)
3. Management (Masters Required)
B. Additional certifications:
1. Description of certification requirement:
2. Name of statute, regulation, or licensing/certification organization requiring this certification:

IX. Approval Dates
CC Approval Date: 02/26/2014
Board Approval Date: 02/26/2014
Course ID: 1535