BSOTC070 : Practical Math for Business and Consumers

General Information

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Attachments:	Practical_Math_for_Business_and_Consumers.docx
Course Code (CB01) (CB01) :	BSOTC070
Course Title (CB02) (CB02) :	Practical Math for Business and Consumers
Department:	Business Information Technolog
Proposal Start:	Fall 2019
TOP Code (CB03) :	(0514.00) Office Technology/Office Computer Applications
SAM Code (CB09) (CB09) :	Clearly Occupational
Distance Education Approved:	Yes
Course Control Number (CB00) (CB00) :	CCC000561301
Curriculum Committee Approval Date:	10/31/2014
Board of Trustees Approval Date:	12/18/2015
External Review Approval Date:	04/08/2015
Course Description:	This course introduces practical mathematical applications for business information students. Topics include solving business problems using an electronic calculator, banking, payroll, invoicing, markups/markdowns, interest, present and future value, credit cards, student loans, types of insurance, installment buying, and mortgages. Learners are required to access a printing calculator with features including round off/up key, decimal selector for 0 through 6 plus float memory keys and 10-12 digit keyboard.
Submission Type:	Change to Content
	Change Course Title, Revise Course Description, Added Mathematics to Faculty Requirements, Input C-ID, Method of Instruction, Method of Evaluation, SLO's, and Delivery Methods and Distance Education.

Faculty Minimum Qualifications

Master Discipline Preferred:	• Business • Mathematics
Alternate Master Discipline Preferred:	No value
Bachelors or Associates Discipline Preferred:	• Office Technologies (Secretarial skills, office systems, word processing, computer applications, automated office training)
Additional Bachelors or Associates Discipline:	• Business

Course Development Options

Basic Skills Status (CB08) (CB08)

Course is not a basic skills course.

Course Special Class Status (CB13) (CB13)

Course is not a special class.

Grade Options

- Pass/No Pass
- Letter Grade methods

☑ Allow Students to Gain Credit by Exam/Challenge

Allowed Number of Retakes

0

Course Prior to College Level (CB21)

Not applicable.

Rationale For Credit By Exam/Challenge

No value

Retake Policy Description

Type:|Non-Repeatable Credit

☑ Allow Students To Audit Course

Associated Programs

☑ Course is part of a program (CB24)

Associated Program	Award Type
CC Office Clerk	Certificate of Achievement
CC Business Office Technology	A.S. Degree Major
CC Administrative Office Assistant	Certificate of Achievement
CC Business Office Technology-	Certificate of Achievement

Transferability & Gen. Ed. Options

Transferability

Transferable to CSU only

Transferability Status

Pending

C-ID	Categories	Transferability Status	Comparable Course
Business	C-ID discipline	Pending	BSOT 115 X

Units and Hours

Summary

Minimum Credit Units (CB07) (CB07)	3	**Total Course In-Class (Contact) Hours**	54	**Total Student Learning Hours**	162
Maximum Credit Units (CB06) (CB06)	3	**Total Course Out-of-Class Hours**	108	**Faculty Load**	-

Credit / Non-Credit Options

Course Credit Status (CB04) (CB04)

Credit - Degree Applicable

Course Non Credit Category (CB22) (CB22)

Credit Course.

Non-Credit Characteristics

No value

Course Classification Code (CB11) (CB11)

Credit Course.

☐ Variable Credit Course

Funding Agency Category (CB23) (CB23)

Not Applicable.

☐ Cooperative Work Experience Education Status (CB10) (CB10)

Weekly Student Hours

	In Class	Out of Class
Lecture Hours	3	6
Lab Hours	-	-
Activity Hours	-	-

Course Student Hours

Course Duration (Weeks)	18
Hours per unit divisor	54
Course In-Class (Contact) Hours	
Lecture	54
Lab	-
Activity	-
Total	54
Course Out-Of-Class Hours	
Lecture	108
Lab	-
Activity	-
Total	108

Time Commitment Notes for Students

No value

Faculty Load

Extra Duty: -   **Faculty Load:** -

Units and Hours - Weekly Specialty Hours

Activity Name	Type	In Class	Out of Class
No value	No value	No value	No value

Requisites

No Value

Entrance Skills

Skill	Content Review
No value	No value

Limitations on Enrollment

Limitation	Provide Rationale
No value	No value

Specifications

Methods of Instruction	Methods of Instruction Rationale
Lecture	Lectures are provided to the students clarifying the concepts in each chapter.
Problem Solving	Students are presented methodologies for solving business problems.
Other	Instructional and other videos and articles are presented to the students to reinforce the concepts of each chapter.
Discussion	Students must answer a discussion question and respond to at least two of his or her classmates.
Computational Work	Students are asked to perform mathematical calculations using a calculator.
Instruction through examination or quizzing	Students must complete weekly quizzes covering the concepts of each chapter.
Instruction through examination or quizzing	Students must complete a final exam covering the concepts of the course.

Assignments

A. Reading Chapters, Selected Articles, Power Point Presentations and videos provided in the learning management software.
B. Complete Weekly Assignments in Canvas.
C. Complete Weekly Quizzes in Canvas.
D. Complete Final Exam in Canvas.
E. Discussions - Students must answer a discussion question and respond to at least two of his or her classmates.

Methods of Evaluation	Methods of Evaluation Rationale
Homework	A. Weekly Assignments. Example: You write a check to cover a bill of $7,653.47. How would you write the word form of this amount on a check? a. seven thousand six hundred fifty-three and 47/100 b. 47/100 c. seven thousand six hundred fifty-three and 47 d. seven thousand six hundred fifty-three and forty-seven hundredths
Tests	B. Weekly quizzes. Example: Lucerne earns a gross income of $5,500 per month and applies for a mortgage with a monthly PITI of $1,244. Lucerne has other financial obligations totaling $829 per month. (Use the ratio guidelines from your text) What type of mortgage, if any, would Lucerne qualify for? a. FHA only b. FHA and Conventional

	c. Conventional only			
	d. None			
Final Exam	C. Final exam.			
	Example:			
	Compound interest yields considerably_____ interest than simple interest.			
Participation	D. Discussion Posts - graded by a rubric.			
	Example:			
	Explain how the lottery uses present value to determine the payout.			
Distance Education Description: how outcomes are evaluated	Students are to complete all weekly assigned activities designated in the learning management software as detailed above.			

Equipment

Learners are required to access a printing calculator with features including round off/up key, decimal selector for 0 through 6 plus float memory keys and 10-12 digit keyboard.

Textbooks

Author	Title	Publisher	Date	ISBN
	Brechner, Robert and Bergeman, George. (2016) Contemporary Mathematics for Business and Consumers, 8th, Cengage Learning			

Other Instructional Materials

No Value

Materials Fee

No

Learning Outcomes and Objectives

Course Objectives

No value

CSLOs

Demonstrate proficiency in the use of a calculator and mathematical functions such as whole numbers, fractions, and decimals.
Expected SLO Performance: 70.0

Perform business applications using equations, percents, invoices, trade and cash discounts, markups and markdowns.
Expected SLO Performance: 70.0

Perform banking and payroll calculations.
Expected SLO Performance: 70.0

Calculate simple interest, compound interest, present value and annuities.
Expected SLO Performance: 70.0

Demonstrate the methodologies used for calculating consumer and business credit and mortgages.
Expected SLO Performance: 70.0

Outline

Outline

1. Using a 10-key calculator for basic mathematics review
   a. Keypad and calculator introduction
   b. Addition; subtraction; multiplication and division of whole numbers
   c. Using fractions
   d. Using decimals

2. Banking applications
   a. The check register
   b. Bank statements
   c. Bank reconciliation

3. Using equations to solve business problems
   a. Concepts,
   b. Terminology
   c. Rules of equations

4. Invoice, trade discounts, and cash discounts for retail applications
   a. Percents
   b. Trade discounts
   c. Markups
   d. Markdowns
   e. Cash discounts

5. Payroll applications
   a. Calculating gross pay
   b. Payroll deductions and taxes
   c. Employer responsibilities

6. Simple Interest
   a. Calculations and maturity value
   b. Payments before the due date
   c. Promissory notes
   d. Discounting notes

7. Compound Interest and present value
   a. Calculating manually and with a table
   c. Calculating future value and present value
   b. The effective rate

8. Installment buying
   a. Finance charges
   b. Calculating APR
   c. Revolving charge accounts
   d. Credit cards interest calculation
   e. Student loans

9. Insurance - life and property
   a. Term
   b. Whole life
   c. Variable life
   d. Liability
   e. Fire
   f. Auto
   g. Errors and omissions
   e. Malpractice

10. Mortgages
    a. Types of mortgages
    b. Amortization
    c. Calculating monthly payment using present value.

Delivery Methods and Distance Education

Delivery Method: Please list all that apply -Face to face -Online (purely online no face-to-face contact) -Online with some required face-to-face meetings ("Hybrid") -Online course with on ground testing -iTV – Interactive video = Face to face course with significant required activities in a distance modality -Other

Face 2 Face
Online
Hybrid
Interactive

Rigor Statement: Assignments and evaluations should be of the same rigor as those used in the on-ground course. If they are not the same as those noted in the COR on the Methods of Evaluation and out-of-class assignments pages, indicate what the differences are and why they are being used. For instance, if labs, field trips, or site visits are required in the face to face section of this course, how will these requirements be met with the same rigor in the Distance Education section?

All paper assignments are identical to those in an onsite class, except that they are uploaded to the course shell into a learning management system as an attachment. Weekly class discussions are conducted by means of online discussion forums within a learning management system. Uploaded quizzes or exams accessible through the class web site are used. Feedback in online discussion forums and through e-mail is used. Substantive critiques of all essays and at least general responses to discussion posts are provided. Rubrics, stated in the syllabus, are used to evaluate online discussion work but are not required. As with any on-ground class, departmental rubrics are used to guide the assessment of essays.

Effective Student-Instructor Contact: Good practice requires both asynchronous and synchronous contact for effective contact. List the methods expected of all instructors teaching the course. -Learning Management System -Discussion Forums -Moodle Message -Other Contact -Chat/Instant Messaging -E-mail -Face-to-face meeting(s) - Newsgroup/Discussion Board -Proctored Exam -Telephone -iTV - Interactive Video -Other (specify)

Student-Instructor contact will include the following: discussion forums, learning management system messages, announcements, and feedback for each student's work.
Student-Instructor contact MAY include the following: chat/Zoom, newsgroup/discussion board, phone, and iTV.
Student-Student contact will include the following: discussion forums.
Student-Student contact MAY include the following: chat/Zoom, learning management system messages, group work, and peer reviewed projects.

Software and Equipment: What additional software or hardware, if any, is required for this course purely because of its delivery mode? How is technical support to be provided?

Cengage Now is the source for assignments and testing. Technical support is provided by the help desk at Cengage Learning.

Accessibility: Section 508 of the Rehabilitation Act requires access to the Federal government's electronic and information technology. The law covers all types of electronic and information technology in the Federal sector and is not limited to assistive technologies used by people with disabilities. It applies to all Federal agencies when they develop, procure, maintain, or use such technology. Federal agencies must ensure that this technology is accessible to employees and the public to the extent it does not pose an "undue burden". I am using -iTV—Interactive Video only -Learning management system -Publisher course with learning management system interface.

The learning management system is accessible and compatible with support programs such as Kurzweil 3000. Faculty will use the Canvas accessibility checker, along with other resources provided by our Distance Education Director, to ensure all learning materials are accessible, including but not limited to documents, pdfs, OERs, external websites, and videos.

Class Size: Good practice is that section size should be no greater in distance ed modes than in regular face-to-face versions of the course. Will the recommended section size be lower than in on-ground sections? If so, explain why.

The class size is from 25 to 45 students.