



COURSE OUTLINE

BCO101

1

Prepared: Mathematics Department Approved: Sherri Smith

Course Code: Title	BCO101: BUSINESS MATH							
Program Number: Name	2035: BUSINESS							
Department:	MATHEMATICS							
Semester/Term:	17F							
Course Description:	In this course, students will begin with a review of basic arithmetic and algebraic manipulations, continuing with the following topics: ratios and proportions, percentages and the percentage formula, discounts, markups and markdowns, payroll scenarios, break-even analysis, and simple interest.							
Total Credits:	4							
Hours/Week:	4							
Total Hours:	60							
Essential Employability Skills (EES):	#3. Execute mathematical operations accurately. #4. Apply a systematic approach to solve problems. #5. Use a variety of thinking skills to anticipate and solve problems. #10. Manage the use of time and other resources to complete projects.							
Course Evaluation:	Passing Grade: 50%, D							
Evaluation Process and Grading System:	<table><tr><th>Evaluation Type</th><th>Evaluation Weight</th></tr><tr><td>Assignment</td><td>20%</td></tr><tr><td>Tests</td><td>80%</td></tr></table>		Evaluation Type	Evaluation Weight	Assignment	20%	Tests	80%
Evaluation Type	Evaluation Weight							
Assignment	20%							
Tests	80%							
Books and Required Resources:	Contemporary Business Mathematics with Canadian Applications by Hummelbrunner Publisher: Pearson Edition: 11 ISBN: 9780134141084							
Course Outcomes and Learning Objectives:	Course Outcome 1. 1. Apply knowledge of basic math skills as they relate to general business applications.							



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2

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Learning Objectives 1.

- 1.1 Simplify arithmetic expressions using the basic order of operations.
- 1.2 Determine equivalent fractions and convert fractions to decimals.
- 1.3 Perform calculations using fractions, decimals and percentages.
- 1.4 Through problem solving, compute simple arithmetic and weighted averages.
- 1.5 Determine gross earnings for employees remunerated by the payment of salaries, hourly wages or commissions.
- 1.6 Through problem solving, compute Goods and Services Tax, Harmonized Sales tax, sales taxes and real property taxes.

Course Outcome 2.

- 2. Apply the basic formula rearrangement concepts for the simplification and solving of algebraic equations.

Learning Objectives 2.

- 2.1 Simplify algebraic expressions by extracting common factors and applying rules of exponents.
- 2.2 Solve a linear equation in one variable.
- 2.3 Solve two linear equations in two variables.
- 2.4 Rearrange a formula or equation to isolate a particular variable.
- 2.5 Solve "word problems" that lead to a linear equation in one unknown or two linear equations in two unknowns.
- 2.6 Given any two of the three quantities: percent rate, portion and base, solve the third.
- 2.7 Solve problems involving percent change.

Course Outcome 3.

- 3. Set up and solve ratios and proportions as they relate to business applications.

Learning Objectives 3.

- 3.1 Set up and manipulate ratios.



COURSE OUTLINE

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3

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- 3.2 Set up and solve proportions.
- 3.3 Use proportions to allocate or prorate an amount on a proportionate basis.
- 3.4 Use quoted exchange rate movement to currency appreciation or depreciation.
- 3.5 Interpret and use index numbers.

Course Outcome 4.

- 4. Solve integrated word problems involving discounts, markups and markdowns.

Learning Objectives 4.

- 4.1 Calculate the net price of an item after single or multiple trade discounts.
- 4.2 Calculate a single discount rate that is equivalent to a series of discounts.
- 4.3 Understand the ordinary dating notation for the terms of payment of an invoice.
- 4.4 Calculate the amount of the cash discount for which a payment qualifies.
- 4.5 Solve merchandise pricing problems involving markup and markdown.

Course Outcome 5.

- 5. Compute break-even values.

Learning Objectives 5.

- 5.1 Compute break-even values using cost-volume-profit relationships, contribution margin and contribution rate.
- 5.2 Construct break-even graphs.
- 5.3 Calculate the effects of changes to cost, volume and profit.

Course Outcome 6.

- 6. Determine values for simple interest applications.

Learning Objectives 6.

- 6.1 Calculate interest, maturity value (future value) and present value in a simple interest



COURSE OUTLINE

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4

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environment.

6.2 Present details of the amount and timing of payments in a time diagram.

6.3 Calculate the equivalent value on any date of a single payment or a stream of payments.

Date:

Thursday, August 31, 2017

Please refer to the course outline addendum on the Learning Management System for further information.