

Mathematics Department
Business Mathematics – AEC
201-801-DW

COURSE OBJECTIVES

In this course students will acquire mathematical skills as they relate to various essential business calculations. In addition, students will be introduced to basic concepts of finance that require computations.

Topics such as calculation of percentages and averages, computation of payroll amounts, trade and cash discounts and mark-ups and mark-downs are explored. Finance-related calculations of simple and compound interest, present and future values and other financial functions such as annuities and yield are developed.

COURSE COMPETENCIES

This course will allow the student to fully achieve the competency:

BW24 : Conduct business and finance-related computations.

Elements of the Competency:

1. Perform Arithmetic Functions.
2. Perform Basic Algebraic Functions.
3. Perform business-related calculations.
4. Perform finance- related calculations.

PRE-REQUISITE

No prerequisites.

PONDERATION

2-1-3

EVALUATION SCHEME AND SCHEDULE

The Institutional Student Evaluation Policy (ISEP) is designed to promote equitable and effective evaluation of student learning and is therefore a crucial policy to read and understand. The policy describes the rights and obligations of students, faculty, departments, programs, and the College administration with regard to evaluation in all your courses, including grade reviews and resolution of academic grievance. ISEP is available on the Dawson website.

Term Work

The term work is based on a minimum of 4 ½ hours of tests/quizzes. A minimum of 3 class tests will be given.

Final Examination

There is no final exam in this course.

Grading Policy

Evaluation:	3 in class tests (25% each)	75%
	3 Assignments	25%
	TOTAL	100%

To pass the course, the students must obtain at least 60%.

REQUIRED TEXT AND MATERIALS

Contemporary Business Mathematics with Canadian Applications, Loose Leaf Version (10th Edition)

Authors: S.A. Hummelbrunner and K. Suzanne Coombs

Publisher: Pearson Canada

ISBN-13: 9780133772555

Calculators: A scientific calculator, which has no text storage or graphing capabilities, is allowed for class tests and the final exam.

TEACHING METHODS

Lectures and problem sessions.

ATTENDANCE AND COURSE PARTICIPATION REQUIREMENTS

Students should refer to the Institutional Student Evaluation Policy (ISEP section III-C) regarding attendance.

Attendance is recommended for the successful completion of the course.

LITERACY STANDARDS

Problem solving is an essential component of this course. Students will be expected to analyze problems stated in words, to present their solutions logically and coherently, and to display their answers in a form corresponding to the statement of the problem, including appropriate units of measurement. Marks will be deducted for work which is inadequate in these respects, even though the answers may be numerically correct.

STUDENT OBLIGATIONS

- (a) Students have an obligation to arrive on time and remain in the classroom for the duration of scheduled classes and activities.
- (b) Students have an obligation to write tests and final examinations at the times scheduled by the teacher or the College. Students have an obligation to inform themselves of, and respect, College examination procedures.
- (c) Students have an obligation to show respectful behavior and appropriate classroom deportment. Should a student be disruptive and/or disrespectful, the teacher has the right to exclude the disruptive student from learning activities (classes) and may refer the case to the Director of Student Services under the Student Code of Conduct.
- (d) Electronic/communication devices (including cell phones, mp3 players, etc.) have the effect of disturbing the teacher and other students. All these devices must be turned off and put away. Students who do not observe these rules will be asked to leave the classroom.

Everyone has the right to a safe and non-violent environment. Students are obliged to conduct themselves as stated in the Student Code of Conduct and in the ISEP section on the roles and responsibilities of students. (ISEP section II-D)

ACADEMIC INTEGRITY

Cheating in Examinations, Tests, and Quizzes

Cheating includes any dishonest or deceptive practice relative to formal final examinations, in-class tests, or quizzes. Such cheating is discoverable during or after the exercise in the evaluation process by the instructor. Such cheating includes, but is not limited to:

- a. copying or attempting to copy another's work.
- b. obtaining or attempting to obtain unauthorized assistance of any kind.
- c. providing or attempting to provide unauthorized assistance of any kind.
- d. using or possessing any unauthorized material or instruments which can be used as information storage and retrieval devices.
- e. taking an examination, test, or quiz for someone else.
- f. having someone take an examination, test, or quiz in one's place.

Unauthorized Communication

Unauthorized communication of any kind during an examination, test, or quiz is forbidden and subject to the same penalties as cheating.

Plagiarism on Assignments and the Comprehensive Examination

Plagiarism is the presentation or submission by a student of another person's assignments or Comprehensive Assessment as his or her own. Students who permit their work to be copied are considered to be as guilty as the plagiarizer.

Penalties

Cheating and plagiarism are considered extremely serious academic offences. Action in response to an incident of cheating and plagiarism is within the authority of the teacher.

Penalties may range from zero on a test, to failure in the course, to suspension or expulsion from the college.

According to ISEP, the teacher is required to report to the Sector Dean all cases of cheating and plagiarism affecting a student's grade. (see ISEP section IV-C.)

INTENSIVE COURSE CONFLICTS & POLICY ON RELIGIOUS OBSERVANCE

If a student is attending an intensive course, the student must inform the teacher, within the first two weeks of class, of the specific dates of any anticipated absences.

Students who wish to observe religious holidays must also inform each of their teachers in writing within the first two weeks of each semester of their intent to observe the holiday so that alternative arrangements convenient to both the student and the teacher can be made at the earliest opportunity. The written notice must be given even when the exact date of the holiday is not known until later. Students who make such arrangements will not be required to attend classes or take examinations on the designated days, nor be penalized for their absence.

It must be emphasized, however, that this College policy should not be interpreted to mean that a student can receive credit for work not performed. It is the student's responsibility to fulfill the requirements of the alternative arrangement.

Students who intend to observe religious holidays or who take intensive courses must inform their teachers in writing as prescribed in the ISEP Policy on Religious Observance. (ISEP Section III-D).

A form for this purpose is available at the end of this document.

MATH TUTORIAL ROOM

Volunteer math teachers are available for help in room 7B.1 from 10:00 to 16:00 (Monday through Friday) and from 17:00-18:00 (Monday through Thursday).

COURSE CONTENT & TENTATIVE SCHEDULE

(number of classes listed is approximate)

COURSE CONTENT: (Number of hours given are approximate)

PART ONE (15 hours)

TOPIC	SECTION	EXERCISE	EXERCISES
	N	PAGE	
Review of Arithmetic			
Basics of Arithmetic	1.1	5	Part A (<i>all</i>)
Fractions	1.2	6	Part A-B-C-D-E (<i>all</i>)
Applications – Averages	1.3	12	Part A-B (<i>all</i>)
Review of Basic Algebra			
Simplification of Algebraic Expressions	2.1	39	Part A-B-C (<i>all</i>)
Integral Exponents	2.2	45	Part A-B (<i>all</i>)
Fractional Exponents	2.3	52	Part A-B (<i>all</i>)
Logarithms-Basic Aspects	2.4	56	Part A-B-C (<i>all</i>)
Solving Basic Equations	2.5	63	Part A-B (<i>all</i>)
Equation Solving Involving Algebraic Simplification	2.6	67	Part A-B-C-D (<i>all</i>)
Ratio, Proportion, and Percent			
Ratios	3.1	85	Part A-B-C (<i>all</i>)
Proportions	3.2	90	Part A-B (<i>all</i>)
Percent	3.3	95	Part A-B-C (<i>odd</i>)
The Basic Percentage Problem	3.4	99	Part A-B-C-D-E (<i>odd</i>)

PART TWO (15 hours)

Review of Arithmetic			
Applications - Payroll	1.4	18	Part A (<i>all</i>)
Review Exercises		31	8-23
Applications – Taxes	1.5	25	Part A (<i>all</i>)
Review Exercises		32	24-29
Trade Discount, Cash Discount, Markup and Markdown			
Determining cost with Trade Discount	6.1	203	All
Payment Terms and Cash Discounts	6.2	211	All
Markup	6.3	219	All
Markdown	6.4	227	All
Integrated Problems	6.5	232	All
Simple Interest			
Finding the Amount of Simple Interest	7.1	247	All
Finding the Principal, Rate, or Time	7.2	251	All
Computing Future Value (<i>Maturity Value</i>)	7.3	256	All
Finding the Principal (<i>Present Value</i>)	7.4	258	All
Computing Equivalent Values	7.5	261	All
Simple Interest Applications			
Promissory Notes – Basic Concepts and Computations	8.1	278	All

PART THREE (15 hours)

Compound Interest - Future Value and Present Value			
Basic Concepts and Computations	9.1	313	All
Using the Formula for the Future Value of a Compound Amount	9.2	319	All
Present Value and Compound Discount	9.3	331	All
Compound Interest – Further Topics			
Effective and Equivalent Interest Rates	10.3	377	All
Ordinary Simple Annuities			
Introduction to Annuities	11.1	392	All
Finding Future Value	11.2	394	All
Finding Present Value	11.3	404	All
Finding the Periodic Payment	11.4	414	All
Finding the Term n of an Annuity	11.5	420	All
Bond Valuation and Sinking Funds			
Purchase Price of Bonds	15.1	570	
Purchase Price of Bonds	15.2	590	1-6
Finding the Yield Rate	15.4	590	All

RELIGIOUS OBSERVANCE/ INTENSIVE COURSES FORM

Students who intend to observe religious holidays or who take intensive courses must inform their teachers in writing as prescribed in the ISEP Policy on Religious Observance. (ISEP Section III-D)

The following form must be submitted within the first two weeks of classes.

Name: _____

Student Number: _____

Course: _____

Teacher: _____

Date:

Description:
