

BUS 110A Business Mathematics

3 credits, 5 hours per week

Students will cover (a) a review of basic algebra, ratio and proportion, and linear systems; (b) the mathematics of Business Management including the calculation of depreciation, discounts, simple interest and mark-ups; and (c) the mathematics of finance which includes compound interest, future value, present value, annuities, amortization, bond valuation, sinking funds, and discounted cash flows. It is expected that two-thirds of the course will focus on item (c). An emphasis on the use of word problems and small case studies will be stressed to bring the real world usefulness of the material to light.

Prerequisites: Math 30/33 or Math 30-2

Instructor

Instructor Name: Sandra Efu
Office location: Syncrude Technology Centre Office S111D
Phone number: 780-791-8974
Instructor email: sandra.efu@keyano.ca

Office Hours

Tuesday 10:00 am – 11:00 am; 6:00 pm – 6:30 pm
Wednesday 12:00 pm – 2:00 pm; 6:00 pm – 6:30 pm
Friday 10:00 am – 11:00 am

Hours of Instruction

Tuesday 11:00 am – 12:50 pm (Room CC228)
Friday 11:00 am – 1:50 pm (Room CC224)

Required Resources

Business Mathematics in Canada, F. Ernest Jerome, Tracy Worsick, Ninth edition, ISBN-13: 978 1 259 85616 7. Access to McGraw-Hill Connect is required for assignments and tests.

The textbook, with McGraw-Hill Connect and SmartBook combo, is available at the Keyano bookstore.

TI BA II plus or TI BA II plus Professional Calculator is recommended.

Course Outcomes

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

- Apply ratios, proportions and percents to solve a variety of business problems
- Determine trade discounts, cash discounts, mark-up and mark-down
- Solve problems involving simple interest and partial payments
- Analyze and solve problems involving the time value of money and compound interest using formulae and financial calculator
- Analyze and solve annuities and their applications to loans, bonds, investments and mortgages using formulae and financial calculator

Evaluation

Assignment	Percentage
Assignments	20%
Cases	20%
In-class Pop Quiz	20%
Midterm	15%
Final Examination (comprehensive)	25%

Total: 100%

Note:

1. Assignments, tests, and exams cannot be written late, unless in the case of an illness or emergency.

A grade of C- is required for progression or transfer.

Grading System

Descriptor	Alpha Grade	4.0 Scale	Percent
Excellent	A+	4.0	> 93.9
	A	4.0	87 – 93.9
	A-	3.7	80 – 86.9
Good	B+	3.3	77 – 79.9
	B	3.0	74 – 76.9
	B-	2.7	70 – 73.9
Satisfactory	C+	2.3	67 – 69.9
	C	2.0	64 – 66.9
Progression	C-	1.7	60 – 63.9
Poor	D+	1.3	57 – 59.9
Minimum Pass	D	1.0	50 – 56.9
Failure	F	0.0	< 50

Proposed Schedule of Topics

DATE	TOPIC	REQUIRED READING	ASSIGNMENTS & QUIZZES
8 Sep	Introduction to Course Review and Applications of Basic Mathematics & Algebra	Course Outline Chapters 1 & 2	<i>Assignment 1 (CH 1,2)</i>
12 Sep	Review: Chapters 1 & 2		
15 Sep	Ratios and Proportions	Chapter 3	In-class Pop Quiz
19 Sep	Review: Chapter 3		
22 Sep	Mathematics of Merchandising	Chapter 4	In-class Pop Quiz <i>Assignment 2 (CH 3,4)</i>
25 Sep	Review: Chapter 4, and Case Study		Case Study 1
29 Sep	Simple Interest	Chapters 6	In-class Pop Quiz
3 Oct	Review: Chapter 6		
6 Oct	Applications of Simple Interest	Chapter 7	
10 Oct	Review: Chapter 7, and Case Study		Case Study 2
13 Oct	Compound Interest: Future Value and Present Value	Chapter 8	In-class Pop Quiz <i>Assignment 3 (CH 6,7,8)</i>
17 Oct	Review: Chapter 8		
20 Oct	Compound Interest: Further Topics and Applications	Chapter 9	In-class Pop Quiz
24 Oct	Review: Chapter 9, and Case Study		Case Study 3
27 Oct	Mid-term exam (all chapters covered in class thus far)		
31 Oct	Review of Mid-term exam		
3 Nov	Ordinary Annuities: Future Value and Present Value	Chapter 10	In-class Pop Quiz
7 Nov	Review : Chapter 10		
10 Nov	Reading day – no class		
14 Nov	Case Study		
17 Nov	Ordinary Annuities: Periodic Payment, Number of Payments and Interest Rate	Chapter 11	<i>Assignment 4 (CH 10,11)</i>
21 Nov	Review: Chapter 11, and Case Study		Case Study4
24 Nov	Annuities Due	Chapters 12&13	In-class Pop Quiz
28 Nov	Review: Chapters 12&13, and Case Study		Case Study 5
1 Dec	Loan Amortization: Mortgages Bonds and Sinking Funds	Chapters 14&15	In-class Pop Quiz <i>Assignment 5 (CH 12, 13, 14, 15)</i>
5 Dec	Review: Chapter 14&15, and Case Study		
11-15 Dec	Final Exam Week (comprehensive exam, all chapters covered)		

Please Note:

Date and time allotted to each topic is subject to change.

Performance Requirements

Student Responsibilities

It is your responsibility as a student to contact the Office of the Registrar to complete the forms for Withdrawal or Change of Registration, and any other forms. Please refer to the list of important dates as noted in the Academic Schedule in the Keyano College credit calendar.

More specific details are found in the Student Rights and Student Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Student Code of Conduct Policies.

Student Attendance

Class attendance is useful for two reasons. First, class attendance maximizes a student's learning experience. Second, attending class is a good way to keep informed of matters relating to the administration of the course (e.g., the timing of assignments and exams). Ultimately, you are responsible for your own learning and performance in this course.

It is the responsibility of each student to be prepared for all classes. Students who miss classes are responsible for the material covered in those classes and for ensuring that they are prepared for the next class, including the completion of any assignments and / or notes that may be due.

Academic Misconduct

Students are considered to be responsible adults and should adhere to principles of intellectual integrity. Intellectual dishonesty may take many forms, such as:

- Plagiarism or the submission of another person's work as one's own
- The use of unauthorized aids in assignments or examinations (cheating)
- Collusion or the unauthorized collaboration with others in preparing work
- The deliberate misrepresentation of qualifications
- The willful distortion of results or data
- Substitution in an examination by another person
- Handing in the same unchanged work as submitted for another assignment
- Breach of confidentiality.

The consequences for academic misconduct range from a verbal reprimand to expulsion from the College. More specific descriptions and details are found in the Student Rights and Student Code of Conduct section of the Keyano College credit calendar. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and Student Code of Conduct Policies.

In order to ensure your understanding of the concept of plagiarism, you must successfully complete the online tutorial found on ilearn.keyano.ca. Then print the certificate, sign it, and show it to each of your instructors. Your course work will not be graded until you show this signed certificate.

Specialized Supports**Counselling and Accessibility Services**

Counselling Services provides a wide range of specialized counselling services to prospective and registered students, including personal, career and academic counselling.

SKILL Centre

The SKILL Centre is a learning space in the Clearwater Campus at Keyano College where students can gather to share ideas, collaborate on projects and get new perspectives on learning from our tutorial staff.

The SKILL Centre, through a variety of delivery methods, provides assistance in skill development to Keyano students. Assistance is provided by instructors, staff and student tutors. Individuals wishing to improve their mathematics, writing, grammar, study, or other skills, can take advantage of this unique service.

Authorization

This course outline has been reviewed and approved by the Program Chair.

Sandra Efu, Instructor

Nermin Zukic, Business Chair

Date Authorized

Vincella Thompson, Dean

Date Authorized

Signed copies to be delivered to:

Instructor

Registrar's Office