BUS 110E Business Mathematics
3 credits, 3 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: Dr. Tianze Li
Office location: Syncrude Technology Centre Office S111A
Phone number: 780-791-8937
Instructor email: tianze.li@keyano.ca

Office Hours

Monday   1:00 pm to 1:50 pm
                 2:00 pm to 2:50 pm
Tuesday   1:00 pm to 1:50 pm
Wednesday   2:00 pm to 2:50 pm
Thursday   2:00 pm to 2:50 pm

Hours of Instruction
Thursday   6:30 pm – 9:30 pm
Room: CC228

Required Resources

Business Mathematics in Canada, F. Ernest Jerome/Worsick, Eighth edition, ISBN 978 125 910 3568. Access to McGraw-Hill Connect is required for assignments and tests.

Textbook with McGraw-Hill Connect access is available at the Keyano bookstore.

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

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

Item	Percentage
In-class Activities	10%
Cases	10%
Quizzes	10%
Homework	20%
Midterm	20%
Final Examination	30%

Total: 100%

Note:

1.   Assignments 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
	A+	4.0	> 93.9
Excellent	A	4.0	87 – 93.9
	A-	3.7	80 – 86.9
	B+	3.3	77 – 79.9
Good	B	3.0	74 – 76.9
	B-	2.7	70 – 73.9
	C+	2.3	67 – 69.9
Satisfactory	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	Content
11 Jan	Introduction to Course Review and Applications of Basic Mathematics & Algebra	Course Outline Chapters 1 & 2
18 Jan	Ratios and Proportions	Chapter 3
25 Jan	Mathematics of Merchandising	Chapter 4
1 Feb	Simple Interest Applications of Simple Interest	Chapters 6 & 7
8 Feb	Compound Interest: Future Value and Present Value	Chapter 8
15 Feb	Compound Interest: Further Topics and Applications	Chapter 9
22 Feb	Reading days, no class	
1 Mar	Mid-term Exam	Chapters up to now
8 Mar	Ordinary Annuities: Future Value and Present Value	Chapter 10
15 Mar	Ordinary Annuities: Periodic Payment, Number of Payments and Interest Rate	Chapter 11
22 Mar	Annuities Due	Chapters 12&13
29 Mar	Loan Amortization: Mortgages	Chapters 14
5 Apr	Bonds and Sinking Funds	Chapter 15
12 Apr	Review	All chapters
16 - 20 Apr	Final Exam	All chapters covered during the semester

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.