

**BUS 110A 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: Sandra Efu  
Office location: Syncrude Technology Centre Office S111D  
Phone number: 780-791-8974  
Instructor email: [sandra.efu@keyano.ca](mailto:sandra.efu@keyano.ca)

**Office Hours**

Monday	12:00 pm – 1:00 pm; 2:30 pm – 3:30 pm
Tuesday	12:00 pm – 1:00 pm; 6:00 pm – 6:30 pm
Wednesday	6:00 pm – 6:30 pm
Thursday	1:00 pm – 2:00 pm

**Hours of Instruction**

Monday 9:00 am – 12:00 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%
Paper and Presentation	10%
In-class Quiz	20%
Midterm Examination 1	10%
Midterm Examination 2	10%
Final Examination (comprehensive)	30%
<i>Total:</i>	
	100%

**Note:**

1. For learning to happen in any course, you must take an active role in the process. For this class, you are expected to come to class 'prepared' and 'ready to learn,' which requires you 'to review each chapter before class. Being prepared for class enables you to construct a knowledge base on which subsequent learning rests.
2. Your lowest assignment and lowest in-class quiz marks will be dropped in the calculation of your final grade. If you miss an assignment or quiz it will be considered a zero and qualify as your lowest grade. This is to accommodate any illness or emergency.
3. For collaborative exercises, one grade will be provided to every group member based on the exercise deliverables.
4. All assignments and quizzes must be completed during the allotted period. There will be no exceptions.

I emphasize group learning in my classes, as I believe group activities help students develop a host of skills that are increasingly important in the professional world (Caruso & Woolley, 2008; Mannix & Neale, 2005). Working in groups will provide each student the opportunity to develop team skills, improve communication skills and leverage personal experiences to contribute to group tasks.

*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
	<b>Progression</b>	C-	1.7
Poor	D+	1.3	57 – 59.9
<b>Minimum Pass</b>	D	1.0	50 – 56.9
Failure	F	0.0	< 50

## Proposed Schedule of Topics

DATE	TOPIC	REQUIRED READING	ASSIGNMENTS & QUIZZES
10 Sep	Introduction to Course	Course Outline	<i>Assignment 1 (Basic Math Review, Chapters 1-2)</i>
	Ratios and Proportions	Chapter 3	<i>In-class quiz 1 (Chapter 3)</i>
17 Sep	Mathematics of Merchandising	Chapter 4	<i>In-class quiz 2 (Chapter 4) Assignment 2 (Chapters 3-4)</i>
24 Sep	Simple Interest	Chapters 6	<i>In-class quiz 3 (Chapter 6)</i>
1 Oct	Applications of Simple Interest	Chapter 7	
8 Oct	Holiday (no class) <b>Midterm Exam 1 Assigned (take home; online via Connect)</b>		
15 Oct	Midterm Review		
	Compound Interest: Future Value and Present Value	Chapter 8	<i>In-class quiz 4 (Chapter 8)</i>
22 Oct	Compound Interest: Further Topics and Applications	Chapter 9	<i>Assignment 3 (Chapters 8-9)</i>
29 Oct	Ordinary Annuities: Future Value and Present Value	Chapter 10	<i>Assignment 4 (Chapter 10)</i>
5 Nov	Ordinary Annuities: Periodic Payment, Number of Payments and Interest Rate	Chapter 11	<i>In-class quiz 5 (Chapters 10-11)</i>
12 Nov	Holiday (no class) <b>Midterm Exam 2 Assigned (take home; online via Connect)</b>		
19 Nov	Midterm review	Millionaire Teacher (by Andrew Hallam)	<i>Paper due</i>
	Group Presentations		
26 Nov	Annuities Due	Chapters 12&13	<i>In-class quiz 6 (Chapters 12-13) Assignment 5 (Chapters 12-14)</i>
3 Dec	Loan Amortization: Mortgages	Chapter 14	<i>In-class quiz 7 (Chapter 14)</i>
10-18 Dec	Final Exam Week		

**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](http://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

The Student Academic Support Services (SASS) department: Accessibility Services, Skill Centre and Wellness Services, work together to support student success at Keyano College.

**Accessibility Services (CC167)** supports student success through group and individualized instruction of learning, study and test taking strategies, and adaptive technologies. Students with documented disabilities, or who suspect a disability, can meet with the Learning Strategists to discuss accommodation of the learning barriers that they may be experiencing. Students who have accessed accommodations in the past are encouraged to visit our office at their earliest opportunity to discuss

the availability of accommodations in their current courses. Individual appointments can be made by calling 780-791-8934

**Skill Centre (CC119)** provides a learning space where students can gather to share ideas, collaborate on projects and get new perspectives on learning from our tutorial staff. Students visiting the centre have access to one-to-one or group tutoring, facilitated study groups, and assistance in academic writing. The Skill Centre's Peer Tutor program provides paid employment opportunities for students who have demonstrated academic success and want to share what they have learned. Tutoring is available free to any students registered at Keyano College on a drop in basis, from 9:00 am to 5:00 pm Monday through Friday. Additional evening hours are subject to tutor availability and are posted in the Skill Centre.

**Wellness Services (CC260)** offers a caring, inclusive, and respectful environment where students can access free group and individual support to meet academic and life challenges. Mental Health Coordinators offer a safe and confidential environment to seek help with personal concerns. The Mindfulness Room in CC260 is available as a quiet space for students to relax during regular office hours. Wellness Service welcomes students to participate in any of the group sessions offered throughout the academic year addressing such topics as Mindfulness and Text Anxiety. Individual appointments can be made by calling 780-791-8934.

**Please watch your Keyano email for workshop announcements from our Student Academic Support Services team.**