BUS 110 C, Business Mathematics

3 credits, 3 hours per week

Students will cover (a) a review of basic algebra, ratio & 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 30-1/Math 30 Pure or Math 30-2/Math 30 Applied

Instructor

Name	Dr. Pratibha Shalini
Office Number	S113 A
Phone Number	780-791-8946
Email	pratibha.shalini@keyano.ca

Virtual Office Hours

Days	Time	Location
Tuesday	9:00 am – 11:30 am	Microsoft Teams
Thursday	9:00 am – 11:30 am	Microsoft Teams

Hours of Instruction

Days	Time	Location
Monday	9:30 am – 10:50 am	CC 224
Wednesday	9:30 am – 10:50 am	CC 224

Required Resources

Text: **Contemporary Business Mathematics with Canadian Applications**, S.A. Hummelbrunner, Kelly Halliday, Ali R. Hassanlou, 12th edition.
ISBN: 9780135405871.

Other supplies:

- Access to notebook/PC
- Access to Pearson's MyLab Math

- Non-programmable calculator financial calculator, Texas BA II Plus
- Access to a web camera – Proctorio, the proctoring software will require access during exams/quizzes

Course Learning Outcomes (CLO)

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

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

Evaluation

Component	Weights
Quizzes and/or Assignments	30%
Term Exam(s)	40%
Excel Project	10%
Final Exam	20%
Total	**100%**

Note:

1. There will be a few group assignments in this course. Working in groups will provide each student the opportunity to develop team skills, improve communication skills, and leverage personal experiences to contribute to group assignments. For collaborative exercises, one grade will be provided to every group member based on the exercise deliverables.
2. All assignments must be completed during the allotted period.
3. All quizzes, term exams, and final exams will be written individually by each student. These are in-class assessments and cannot be written at a later time/date. If you have a medical note alternate arrangements will be made.

Course Completion Requirements

The minimum passing grade for this course is a grade point of 1.0 (50% or D). Higher grades may be required to use the course for transfer credit or to satisfy professional designation criteria. Please refer to the credit calendar for more information.

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
	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

BUS 110 C – Business Mathematics		
Tentative Schedule		
Date	Monday	Wednesday
Week 1 Aug 29 & 31		Class 1: Introduction
Week 2 Sept 5 & 7	Holiday: Labour Day	Class 2: Chapter 1 Review of Arithmetic
Week 3 Sept 12 & 14	Class 3: Chapter 1	Class 4: Chapter 2 Review of Basic Algebra
Week 4 Sept 19 & 21	Class 5: Chapter 2 **Quiz 1 – 5% (Ch-1)**	Class 6: Chapter 3 Ratio, Proportion, and Percent
Week 5 Sept 26 & 28	Class 7: Chapter 3 **Quiz 2 – 5% (Ch-2)**	Class 8: Chapter 6 Trade Discounts, Cash Discounts, Markups, and Markdown
Week 6 Oct 3 & 5	Class 9: Chapter 6 **Quiz 3 – 5% (Ch-3)**	Class 10: Chapter 7 Simple Interest and Applications
Week 7 Oct 10 & 12	Holiday: Thanksgiving	Class 11: Chapter 7/8 **Quiz 4 – 5% (Ch-6)**
Week 8 Oct 17 & 19	Class 12: **Term Exam 1 (20%)** **Ch- 1, 2, 3, 6, 7, 8**	Class 13: Chapter 9 Compound Interest

Week 9 Oct 24 & 26	Class 14: Chapter 10 Compound Interest - Further Topics	Class 15: Introduction to BAII Financial Calculator Ch-9 & 10 **Assignment 1 – 5% (Ch9 &10)**
Week 10 Oct 31 & Nov 2	Class 16: Chapter 11 Ordinary Simple Annuities	Class 17: Chapter 11
Week 11 Nov 7 & 9	Class 18: Chapter 12 Ordinary General Annuities **Assignment 2 – 5% (Ch11 & 12)**	No class: Reading Day
Week 12 Nov 14 & 16	Class 19: Chapter 13 Annuity Due	Class 20: Chapter 13 Annuity Due
Week 13 Nov 21 & 23	Class 21: **Term Exam 2 (20%)** **(Ch 9, 10, 11, 12 & 13)**	Class 22: Chapter 14 Amortization (MS Excel)
Week 14 Nov 28 & 30	Class 23: Chapter 15 Sinking Fund (MS Excel)	Class 24: **In class – Excel Project (10%)**
Week 15 Dec 5	Revision	
TBA	**Final Exam (20%)** (Ch – 6, 7, 8, 9, 10, 11, 12 & 13)	

Please Note:
The date and time allotted to each topic are subject to change.

Performance Requirements and Student Services

Student Responsibilities

As a student, it is your responsibility to contact the Office of the Registrar to complete the required forms, including the Withdraw Course or Program or a Change of Registration form. Please refer to the important dates listed in the Academic Schedule in the [Keyano College credit calendar](). The Keyano College credit calendar also has information about Student Rights and the Code of Conduct. It is the responsibility of each student to be aware of the guidelines outlined in the Student Rights and the Code of Conduct Policies.

Student Attendance

Class attendance is helpful for two reasons: First, class attendance maximizes a student's learning experience. Second, attending class is an excellent way to keep informed of matters relating to the course administration (e.g., the timing of assignments and exams). Ultimately, you are responsible for your learning and performance in this course. It is the responsibility of each student to be prepared for all classes. Absent students are responsible for the material covered in those classes, and students must ensure they are ready for their next class, including completing any missed assignments and notes.

Academic Misconduct

Students are considered responsible adults and should adhere to the principles of intellectual integrity. Intellectual dishonesty takes many forms:

- Plagiarism or the submission of another person's work as their 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,
- Submitting unchanged work for another assignment, and
- 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 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 Code of Conduct Policies. To ensure your understanding of plagiarism, you may be required to complete the online Understanding Plagiarism tutorial and submit the certificate of completion.

Online Learning

Technology and internet connectivity will impact your online learning experience. You may be required to watch online videos, take online quizzes, or participate in live online classes. Live/virtual courses will be hosted in Microsoft Teams or Zoom. For all course delivery types, you will access your course resources on Keyano's learning management system: Moodle (iLearn). Login in using your Keyano username and password. Keyano College operates in a Windows-based environment and having access to the correct tools for online learning is essential. Here's a list of recommended system requirements.

Internet Speed

Minimum download and upload speeds of 10 Mbps. Recommended download speeds of 25 Mbps and upload speeds of 10 Mbps (if you are sharing your internet at home). You can check your internet speed with Speedtest by Ookla.

Computer System Requirements

Microsoft Windows	**Apple (Mac)**
Minimum Requirements:	**Minimum Requirements:**
1. Windows 10 Operating System or above	1. Mac Operating System 10.14 (Monterey) or above
2. 4GB of RAM	2. 4GB of RAM
3. 10GB available hard drive storage space	3. 10GB available hard drive storage space
a. Install the Microsoft Office 365 suite (~3GB) *	a. Install the Microsoft Office 365 suite (~3GB) *
	4. Microphone, webcam, and speakers (All modern laptops have these three accessories built-in.)

4. Microphone, webcam, and speakers (All modern laptops have these three accessories built-in.) 5. Windows has built-in anti-virus/malware software. It is essential to install system updates to keep your device secured regularly. *Microsoft Office 365 is free to Keyano students.	5. Mac has built-in anti-virus/malware software. It is important to install system updates to keep your device secured regularly. *Microsoft office 365 is free to Keyano students.
Recommended Upgrades • 8GB of RAM • Regularly back up or synchronize your files, locally or with a cloud-based storage option. OneDrive is the cloud-based storage option free to students after the setup of KeyanoMail and Microsoft 365.	**Recommended Upgrades** • 8GB of RAM • Regularly back up or synchronize your files locally or with a cloud-based storage option. OneDrive is the cloud-based storage option free to students after the setup of KeyanoMail and Microsoft 365.
Tablets, iPads, and Chromebooks are **not** recommended: they may not be compatible with the testing lockdown browsers and Microsoft Office 365.	

Specific Department Requirements

Business and OA programs require Windows 10.
Other programs may utilize Windows-based tools as well.

Computer Software

Students have access to Microsoft Office 365 and Read&Write for free using Keyano credentials.

Recording of Lectures and Intellectual Property

Students may only record a lecture if explicit permission is provided by the instructor or Accessibility Services. Even if students have permission to record a lecture or lecture materials, students may not share, distribute, or publish any of the lectures or course materials; this includes any recordings, slides, instructor notes, etc., on any platform. Thus, no student is allowed to share, distribute, publish or sell course-related content without permission. It is important to recognize that the Canadian Copyright Act contains provisions for intellectual property. The Academic Integrity Policy provides additional information on Keyano College's expectations from students as members of the intellectual community.

ITS Helpdesk

If you have issues with your student account, you can contact the ITS Helpdesk by emailing its.helpdesk@keyano.ca or calling 780-791-4965.

COVID-19 We are subject to provincial, and municipal bylaws, and policies. These decisions may change pending further direction from the Alberta Chief Medical Officer, Alberta Health Services, and other provincial guidelines. To protect yourself and others, get immunized, wash your hands, wear a mask, keep your distance (2m/6 ft) and remain home when feeling unwell. For the most recent COVID-19 information, please refer to albertahealthservices.ca/COVID.

Specialized Supports The Student Services Department is committed to Keyano students and their academic success. There is a variety of student support available at Keyano. All student services are available during Keyano business hours: Monday to Friday, 8:30 a.m. to 4:30 p.m. The College is closed on statutory holidays. If you require support outside of regular business hours, please inform the support service team, and they will do their best to accommodate your needs.

Accessibility Services provides accommodations for students living with disabilities. Students with documented disabilities or who suspect a disability can meet with an Access Strategist to discuss their current learning barriers and possible accommodations. Students who have accessed accommodations in the past are encouraged to contact the department to request accommodations for the following semester. Please note that requesting accommodations is a process and requires time to arrange. Contact the department as soon as you know you may require accommodations. For accessibility supports and disability-based funding, please book an appointment by emailing us at: accessibility.services@keyano.ca.

Accessibility Services also provides individual and group learning strategy instruction for all students and technology training and support to enhance learning. You can meet with an Access Strategist to learn studying and test-taking strategies. In addition, you can schedule an appointment with the Assistive Technology Specialist to explore technology tools for learning. Book an appointment today by emailing: accessibility.services@keyano.ca

Wellness Services 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 provide a safe and confidential environment for you to seek help with personal concerns. Our Wellness Navigator offers support with basic needs such as housing, financial and nutritional support, and outside referrals when needed. Wellness Services welcomes students to participate in group sessions that address topics including mindfulness and test anxiety throughout the academic year. Individual appointments can be made by emailing wellness.services@keyano.ca.

Library Services: provides students with research, information, and education technology supports as they engage in their studies. Library staff are available to help you online and in person throughout the semester. Librarians offer individual and small group appointments booked using the online Book A Librarian calendar. The Library also provides research and subject guides to help you with your studies. To view a subject or course-specific guide, check out the complete list of online Subject Guides. To start your research and access citation guides (APA, MLA, Chicago, or IEEE), visit the Research Help page. The Library's collections (including print and online materials) are searchable using OneSearch. The Library offers a Loanable Technology collection to support students accessing and using technology. For an up-to-date list of technology available

for borrowing, visit the Library's [Loanable Technology webpage](). For a detailed list of library resources and services, go to [www.keyano.ca/library](). For all inquiries, please email [askthelibrary@keyano.ca]() or [chat with us online]().

Academic Success Centre: The Academic Success Centre at Keyano College (CC-119) provides **free** academic support services to registered students, such as tutoring, writing support, facilitated study groups, workshops, and study space. Academic Content Specialists are available in Mathematics, Science, Trades, Power Engineering, Upgrading/College Prep, Human Services, English, Humanities, and more. Students are encouraged to visit the Academic Success Centre to discuss study strategies and academic concerns. For additional information, please email [Academic.Success@keyano.ca]().

Academic Success Coach: The Academic Success Coach is located in the Academic Success Centre and works with students to develop academic success plans, time management skills, study strategies, and homework plans. For additional information, please email [Academic.Success@keyano.ca]().