

BUS 110A Business Mathematics

3 credits, 16 weeks, 5 hours lecture

Students will cover a review of basic algebra, ratio and proportion, and linear systems; the mathematics of Business Management including the calculation of depreciation, discounts, simple interest and mark-ups; and the mathematics of finance which includes compound interest, future value, present value, annuities, amortization, bond valuation, sinking funds, and discounted cash flows. 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 and/or co-requisites: Math 30/33 or Math 30-2

Instructor

Instructor Name: Lloyd Goethals
Office location: e-mail
Phone number: 780-714-1435
lloyd.goethals@keyano.ca

Class Location and Time

Monday 1:00 pm to 2:50 pm, CC228
Wednesday 3:00 pm to 4:50 pm, CC228
Friday 1:00 pm to 1:50 pm, CC195

Office hours

Instructor will be in the classroom ½ hour before class each period and is available by appointment through e-mail or telephone.

Required Resources

Business Mathematics in Canada, F. Ernest Jerome/Worsick, Eighth edition, ISBN 978-0-07-000989-9

TI BA II plus or TI BA II plus Professional Calculator

Course Outcomes

The student will be able to:

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

Evaluation

Clearly outline what students must do in order to pass or complete the course.

Assignments	30%
Midterm Exam	20%
Final Exam	<u>50%</u>
Total	<u>100%</u>

A grade of C- is required for progression. The minimum standard for passing this course is a grade of D (50%).

Performance Requirements**1. Cellular Phones**

Cellular phones are a distraction to both your fellow students and the class instructor. All cellular phones are to be turned off, or at minimum set on silent mode prior to the beginning of class time.

If a student is observed using a cellular phone at any time during class, i.e. sending or reading text messages, they will be asked to leave the classroom for the remainder of class time.

2. Student Attendance

Class attendance is useful for two reasons. First, class attendance maximizes a students' learning experience. Second, attending class is a good way to keep informed of matters relating 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. Please refer to page 32 of the Credit Calendar.

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.

3. Academic Misconduct (page 32 of the Credit Calendar)

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

Penalties for academic offences may range from a verbal reprimand to dismissal from the College, and in certain circumstances may involve legal action.

4. Accommodation for Students with Disabilities

The College will provide reasonable accommodation to students with disabilities in order to promote academic success. If you require accommodation, contact the Learner Assistance Program Office at 792-5608 to initiate the process for documenting, assessing and implementing your individual accommodation needs. In addition, tutoring services are available at the SKILL Centre (Room 119)

Proposed Schedule

Date	TOPIC	CHAPTERS / SECTIONS	Connect Assignment
Sept 3	Introduction to Course	1.1	
Sept 8	Introduction, Basic Algebra, GST, PST, Property Tax, Payroll Algebraic Expressions, Rules of Exponents Linear Equations	1.2 – 1.6 2.1 – 2.3	Sept 19
Sept 15	Solving Word Problems Percent Change, Ratios and Proportions Exchange Rates	2.4 – 2.5 3.1 – 3.4	Sept 26
Sept 22	Trade Discounts and Cash Discounts Partial Payments, Markup and Markdown Linear Systems	4.1 – 4.4 5.1	Oct 3
Sept 29	Breakeven Analysis Simple interest: Present and Future value	5.2 6.1 – 6.3	Oct 10
Oct 7	Equivalent Payments Applications of Simple Interest	6.4 – 6.5 7.2 – 7.4	Oct 17
Oct 15	MIDTERM REVIEW		
Oct 20	MIDTERM EXAM (20%)		
Oct 22	Compound Interest: Present value, Future value	8.1 – 8.5	Nov 7
Oct 29	Compound Interest: Solving for i & n Compound Interest: Effective Rates	9.1 – 9.4	Nov 14
Nov 5	Annuity: Future Value Annuity: Ordinary General Annuities Annuity: Payment Size & No. of Payments	10.1 – 10.5	Nov 21
Nov 12	Ordinary Annuities: Periodic Payments and Interest Rates Perpetuities	11.1 – 11.3 12.1	Nov 28
Nov 19	Perpetuities Annuities Due Loan Amortization	12.1 13.1- 13.3 14.1 – 14.3	Dec 5
Nov 26	Bond Valuations and Sinking Funds	15.1- 16-5	Dec 5
Dec 3	Review		
Dec 10 - 17	Final Examination (50%)		

Please Note: This course outline may be modified to facilitate unforeseen time constraints. Date and time allotted to each topic is subject to change.

Authorization

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

Lloyd Goethals, Instructor

Gina Langager, Chair

Date Authorized

Guy Harmer, Dean

Date Authorized

Signed copies to be delivered to:

Instructor
Registrar's Office