



DEPARTMENT OF BUSINESS

COURSE OUTLINE – WINTER 2015

BA 1050 BUSINESS MATHEMATICS – 3 (3-0-1) 60 HOURS

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PREREQUISITE(S)/COREQUISITE: Math 20, Math 33 or consent of instructor.

REQUIRED TEXT/RESOURCE MATERIALS: Mathematics of Business and Finance: First Edition. (2012). Larry Daisley, Thambyrajah Kugathasan, and Diane Huysmans. Vretta.

All students must have online access to the online lessons and online labs. You must have an access code in order to gain access to the online resources. It is the student's choice if they purchase a textbook with access code, or e-textbook with access code. If you have purchased a used book, you will have to purchase an access code separately at www.intromath.ca

Sharp EL - 738 Calculator

CALENDAR DESCRIPTION: This course emphasizes a range of mathematical calculations used in business. Students will be introduced to simple interest, compound interest, annuities, amortization, sinking funds, statistical methods and probability theory. Practical applications will be emphasized in the course.

CREDIT/CONTACT HOURS: BA 1050 is a 3 credit course consisting of 60 hours of instruction.

DELIVERY MODE(S): BA 1050 consists of three hours of lecture and one hour of lab work per week.

OBJECTIVES :

Simple Interest

- The student will be able to explain the concept of simple interest.
- The student will be able to calculate the amount of interest, principal, time, interest rate, and maturity value of investments and loans.
- The student will be able to calculate equivalent payments that replace another payment or a series of payments.
- The student will be able to explain the use of simple interest in business applications such as demand loans, promissory notes, treasury bills, commercial papers, and discounting.

Compound Interest

- The student will be able to explain the concept of compound interest and how it differs from simple interest.
- The student will be able to calculate the future value and present value of investments and loans in compound interest applications using both algebraic and financial calculator methods.
- The student will be able to calculate equivalent payments that replace another payment or a set of payments.
- The student will be able to calculate the effective and equivalent interest rates for nominal interest rates.

Annuities

- The student will be able to identify annuities based on a payment date and compounding period.

- The student will be able to calculate the future value and present value of ordinary simple annuities.
- The student will be able to calculate the future value and present value of ordinary general annuities.
- The student will be able to calculate the future value and present value of simple annuities due and general annuities due.
- The student will be able to calculate the amount of the periodic payments (PMT), the number of payments (n), term (t), periodic interest rate (i), and nominal interest rate (j) of an annuity.
- The student will be able to calculate the present value, number of payments, term, and periodic payment of a deferred annuity.
- The student will be able to explain the concept of amortization of loans.
- The student will be able to calculate the interest portion, principal portion, and principal balance after any payment.
- The student will be able to explain and will understand bond terminology.
- The student will be able to calculate the purchase price of a bond on an interest payment date.
- The student will be able to calculate the purchase price of a bond between interest payment dates.

TRANSFERABILITY:

**** Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability (Thompson Rivers University, AU, CUC, KUC, AUG, CGA, CMA, PMAC, AAA**

GRADING CRITERIA:

Grading Conversion Chart			
Alpha Grade	4 Point Equivalent	Percentage Guidelines	Designation
A+	4.0	90 – 100	Excellent
A	4.0	85 – 89.99	
A-	3.7	80 – 84.99	First Class Standing
B+	3.3	77 – 79.99	
B	3.0	73 – 76.99	Good
B-	2.7	70 – 72.99	
C+	2.3	67 – 69.99	Satisfactory
C	2.0	63 – 66.99	
C-	1.7	60 – 62.99	
D+	1.3	55 – 59.99	Minimal Pass
D-	1	50 – 54.99	
F	0	0 – 49.99	Fail
WF	0	0	Fail, withdrawal after the deadline.

EVALUATIONS:

Online Lessons	5%
Online Labs (10 @ 2% each)	20%
Three Midterms	40%
Simple Interest, Compound Interest, Annuities	
Final Exam (cumulative)	35%
	100%

Online Lessons

- Each section covered in the text (for example, section 8.1), will have an associated online lesson that the students must complete.
- These lessons are interactive and completion of all lessons within the stipulated pre-set due dates will have a total weighting of 5% of the students final grade. Completion marks on lessons are recorded on the dashboard and visible at all times for students. **In order to obtain the completion marks for the online lessons, the student must complete the lesson before the expiration of the pre-set due date.**
- Interactive scenes in the Lessons (within the pre-set due date) are locked for students to attempt correctly. They will need to work through them and answer questions correctly to unlock them. Once a lesson is unlocked, they can freely go back and forth for practice.
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Online Labs

- There will 10 labs dispersed throughout the semester (see schedule for dates). The student will be allowed 3 attempts at each lab consisting of 6-10 questions, depending on the content being covered. Each lab will be worth 2% of the students final grade, regardless of the length of the lab, for a total of 20% (10 x 2%) of the students final grade.
- The labs will be marked immediately and the student will receive their grade immediately. Corrections for the attempted lab will be made available to the student immediately after they have submitted their answers.
- The highest grade on any lab attempt is recorded on the dashboard.
- **All labs must be completed before the expiration of the pre-set due date or the student will receive a mark of zero for any missed labs.**
- After the expiration of the pre-set due date, students will continue to have access to the lessons and labs for unlimited practice. However, they will not be graded.

Lesson, Lab and Exam Policies:

- Lessons, labs and exams will be written as scheduled. No rewrites will be given. If there is an excusable absence, the weighting of the missed exam will be added to the final exam weighting. If the absence is not excusable, a grade of 0% will be given.
- In order to get the most out of class regular attendance and active participation is encouraged. Repeated lateness will be viewed similar to an absence in class. Disruptive behavior will also be viewed as “not professional” and the student will be asked to leave the classroom, resulting in a marked absence....i.e. excessive/disruptive talking, texting, taking phone calls, ect. Please read pages 42 and 43 of the Academic Calendar which are applicable to the class. Final examinations will be scheduled by the registrar’s office. **Do not plan any activities during examination week.**

Grande Prairie Regional College Calendar Academic Regulations. **Debarred From Exams.** “You may be **refused permission to write a final examination** in a course on the advice of the instructor concerned. This usually happens when absences are excessive (more than 6) or if significant parts of required assignments or lab work are not completed.”

Student Conduct

- **Your responsibility** as a student is to arrive on time and remain for the duration of scheduled classes and related activities.
- **Your responsibility** as a student is to respect faculty member’s right to enforce the attendance requirements for the course.