



DEPARTMENT OF BUSINESS AND OFFICE ADMINISTRATION

COURSE OUTLINE – Winter 2025

BA1050 (C3): Business Mathematics – 3 (3-0-1) UT 60 Hours for 15 Weeks

Northwestern Polytechnic acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation, and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land, and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

INSTRUCTOR: Lori Bombier

OFFICE: C410

OFFICE HOURS: Tuesday and Thursday – 11:30 – 12:50

PHONE: 780-539-2711

E-MAIL: LBombier@nwpolytech.ca

*All email correspondence must be sent from your NWP student email account and professionally formatted (i.e., subject line filled in, proper greeting, spelling, grammar check, etc...). Emails that do not follow the above requirements will not be responded to.

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

PREREQUISITE(S): Math 20-1 or 20-2 with 60% or Math 30-1 or Math 30-2 with 50%.

REQUIRED TEXT/RESOURCE MATERIALS:

Business Mathematics in Canada, 11th Edition (2023).

McGraw-Hill Ryerson. Jerome and Worswick.



All students must have access to Connect. **You must have an access code in order to gain access to the online resources.** McGraw-Hill Connect™ is a web-based assignment and assessment platform that gives students the means to better connect with their coursework, and with the important concepts that they will need to know for success now and in the future. **If you have purchased a used book, you will have to purchase an access code separately.** Instructions to do this are available in the Registration Module.

Sharp EL - 738 Calculator

DELIVERY MODE(S): BA1050 consists of three hours of lecture and one hour of lab work per week. Attend On-Campus, In-Person.

LEARNING OUTCOMES:

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:

Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at the Alberta Transfer Guide main page <http://www.transferalberta.alberta.ca>.

** 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**

EVALUATIONS:

Smart Book (SB) Lessons	6%
CONNECT Quizzes (9@ 1% each)	9%
Pop Quizzes (5@1% each)	5%
Mid-Term Exam	25%
Annuities Exam	20%
Final Exam (cumulative)	35%

To receive credit for BA 1050, **you must achieve 50 percent on the final examination, and a course composite grade of at least D (50%).** You are strongly encouraged to complete all assignments and exams—you will receive a zero (0) for any missed assignment or exam. The weighting of each assessment activity is indicated in the chart above

GRADING CRITERIA:

*Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**.*

Alpha Grade	4-point Equivalent	Percentage Guidelines		Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	95-100		C+	2.3	67-69
A	4.0	85-94		C	2.0	63-66
A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

COURSE SCHEDULE/TENTATIVE TIMELINE:

Date	Section Covered	Connect Quizzes	SB Lessons
1/7/2025	Introduction		
1/9/2025	7.1 & 7.2		✓
1/10/2025	7.2		✓
1/14/2025	7.3		✓
1/16/2025	7.4		✓
1/17/2025	7.5		✓
1/21/2025	7.5 & 7.6		✓
1/23/2025	7.6	Chapter 7 Quiz	✓
1/24/2025	8.1 & 8.2		✓
1/28/2025	8.3		✓
1/30/2025	8.4		✓
1/31/2025	8.4 & 8.5	Chapter 8 Quiz	✓
2/4/2025	9.1 & 9.2		✓
2/6/2025	9.3 & 9.4		✓
2/7/2025	9.3 & 9.4		✓
2/11/2025	9.5		✓
2/13/2025	9.6	Chapter 9 Quiz	✓
2/14/2025	10.1		✓
2/18/2025	WINTER	BREAK	NO CLASSES
2/25/2025	10.2		✓
2/27/2025	10.3		✓
2/28/2025	10.4	Chapter 10 Quiz	✓
3/4/2025	Mid-Term Exam – 25%		
3/6/2025	11.1		✓
3/7/2025	11.2		✓
3/11/2025	11.3		✓
3/13/2025	11.4	Chapter 11 Quiz	✓
3/14/2025	12.1 & 12.2		✓
3/18/2025	BUSINESS	CONFERENCE	
3/20/2025	12.3	Chapter 12 Quiz	✓
3/21/2025	13.1		✓
3/25/2025	13.2		✓
3/27/2025	13.3	Chapter 13 Quiz	✓
3/28/2025	Annuities Exam – 20%		
4/1/2025	15.1		✓
4/3/2025	15.2		✓
4/4/2025	15.3	Chapter 15 Quiz	✓
4/8/2025	16.1 & 16.2		✓
4/10/2025	16.3	Chapter 16 Quiz	✓
4/11/2025			
April 14th – 23rd	Final Exam Scheduled by The Registrar's Office		

STUDENT RESPONSIBILITIES:

Please find the student rights and responsibilities policy here:

<https://www.nwpolytech.ca/about/administration/policies/fetch.php?ID=69>

STATEMENT ON PLAGIARISM AND CHEATING:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available at <https://www.nwpolytech.ca/about/administration/policies/index.html>.

**Note: all Academic and Administrative policies are available on the same page.

Additional Information: IMPORTANT Assignment, Quiz and Exam Policies:

SB Lessons

- Each section covered in the text (for example, section 8.1), will have an associated SB 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 6% of the student's final grade.
- Completion marks on lessons are always recorded on the dashboard and visible for students. 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. Students 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.

CONNECT Quizzes

- There will be 9 quizzes dispersed throughout the semester (see schedule for dates). The student will be allowed 2 attempts at each quiz. Each quiz will be worth 1% of the student's final grade, regardless of the length of the quiz, for a total of 9% (9 x 1%) of the student's final grade.
- The quizzes will be marked immediately, and the student will receive their grade immediately.
- The highest grade on any lab attempt is recorded on the dashboard.
- All quizzes must be completed before the expiration of the pre-set due date, or the student will receive a mark of zero (0) for any missed labs.
- Once the quiz has been started, you must complete the entire quiz within the 60-minute time limit. Logging off or losing the internet connection during the quiz will result in a grade based only on the proportion of the exam that has been completed. It is imperative that the student has a reliable internet connection when attempting an exam.
- The student will be given a maximum of two attempts at each chapter quiz.

Pop Quizzes

- Five pop quizzes will be given throughout the semester. Each quiz will be worth 1% of the student's final grade.
- Student's will not be given advance notice when the pop quizzes will be given.
- **Rewrites/rescheduled quizzes will not be given.** If there is an excusable absence, the weighting of the missed quiz will be added to the final exam weighting. If the absence is not excusable, a grade of 0% will be given.

Exams

- Two exams will be given throughout the semester (See schedule for dates). They include:

Mid-Term Exam	25%
Annuities Exam	20%

Final Exam

- 2 hours will be given for the final exam to be written.
- The final exam will be cumulative and will account for 35% of the final grade.
- The final exam will be scheduled by the Registrar's Office during exam week(s). Do not plan any activities during this time.
- Approved calculators and approved translation devices are the only electronic devices allowed during the final examination. No programmable calculators will be allowed. Textbooks or notes will not be allowed in the examination area. Cell phone calculators may not be used in examinations.
- To receive credit for BA 1050, **you must achieve 50 percent on the final examination, and a course composite grade of at least D (50%).** You are strongly encouraged to complete all assignments and exams—you will receive a zero (0) for any missed assignment or exam. The weighting of each assessment activity is indicated in the chart above.

Exam and Classroom Policies

- **SB Lessons, quizzes and exams will be written/completed as scheduled.**
- **Rewrites/rescheduled exams/quizzes will not 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.
- To get the most out of class regular attendance and active participation is encouraged. Repeated lateness &/or not remaining for the duration of classroom activities will be recorded as 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, etc...
- Students are expected to demonstrate professional conduct for the duration of the course. Some aspects of this include the following: attending each class and arriving on time, restricting discussions in class to the current course material, keeping mobile phones in the “off” or “silent” modes, and not placing or answering calls, text messages, or emails during class time. Unprofessional conduct is disruptive to the learning environment and makes mastering the course material more difficult for all students. If behavior is deemed to be disruptive to the classroom environment, the student will be required to leave.
- **The student is responsible for any missed content due to missing a class (excused or unexcused).**
- **Photographing and/or recording course content is strictly prohibited.**