

COURSE OUTLINE		
<b>TERM: Spring 2023</b>	<b>COURSE NO: BADM 102</b>	
<b>INSTRUCTOR:</b>	<b>COURSE TITLE: Introduction to Financial Mathematics</b>	
<b>OFFICE: LOCAL:</b>	<b>SECTION NO(S):</b>	<b>CREDITS: 3.0</b>
<b>E-MAIL: @capilanou.ca</b>		
<b>OFFICE HOURS:</b>		
<b>COURSE WEBSITE:</b>		

Capilano University acknowledges with respect the Liłwat7úl (Lil'wat), x<sup>w</sup>məθk<sup>w</sup>əyəm (Musqueam), shíshálh (Sechelt), Sk̓wx̓wú7mesh (Squamish), and Səlílwətaʔ/Selilwitulh (Tsleil-Waututh) people on whose territories our campuses are located.

### COURSE FORMAT

Three hours of class time, plus an additional hour delivered through on-line or other activities for a 15-week semester, which includes two weeks for final exams. May be offered online or in mixed mode format.

### COURSE PREREQUISITES

Principles of Math 11 (C) or Pre-calculus 11 or Foundations of Math 11 (C) or BMTH 044 (C) or BMTH 048 (C) or Math 096 (C) or Math 097 (C) or Applications of Math 12 or Apprenticeship & Workplace Mathematics 12 (B) or Foundations of Math 12 or Principles of Math 12 or Pre-calculus 12 or BMTH 054 or BTEC 115 (B-).

### CALENDAR DESCRIPTION

This course provides a solid quantitative foundation in finance and business mathematics. The course will focus on the concepts of time value of money, simple and compound interest applications, ratios and proportions and mathematics of merchandising. Additional topics relevant for financial decision making will also be covered. The student will utilize standard financial models in analysis, problem-solving, and decision-making for both personal and business financial activities. Financial calculators and/or computer spreadsheet applications will also be used to facilitate analysis and the decision-making process.

### COURSE NOTE

BADM 102 is an approved Quantitative/Analytical course for baccalaureate degrees.  
BADM 102 is an approved Numeracy course for Cap Core requirements.

### REQUIRED TEXTS AND/OR RESOURCES

Jerome, F.E and Worswick, T. (2020) *Business Mathematics in Canada*. 10th Ed. McGraw-Hill Ryerson, 2020; or similar.

Financial Calculator: **Texas Instruments BAII Plus or any other financial calculator.**

The instructor may include additional supplemental resources to augment the textbook readings.

### COURSE STUDENT LEARNING OUTCOMES

**On successful completion of this course, students will be able to do the following:**

1. Explain time value of money and its importance in finance and investment decision making.

2. Utilize financial mathematics to calculate simple interest, compound interest, annuities, ratios and proportions, amortization tables, merchandizing.
3. Identify business language in relation to financial models.

**Students who complete this Numeracy course will be able to do the following:**

1. Apply both analytical and numerical skills to solve problems.
2. Summarize and analyze data in quantitative forms.
3. Interpret and draw conclusions from an analysis of quantitative data.
4. Represent quantitative information in a variety of forms (e.g. symbolically, visually, numerically, and verbally).
5. Incorporate quantitative evidence in support of an argument.

**COURSE CONTENT**

1. Ratios, proportions, percent, and percentage change. (1 week)
2. Weighted average in investment portfolio, stock indices, and related business problems. (1 week)
3. Exchange rate and currency conversion applied in international trade, tourism, and investment in foreign securities. (1 week)
4. Mathematics of merchandising including cash and trade discounts, mark-up and markdown, terms of payment, and break-even point. (2 weeks)
5. Simple interest and its application in savings accounts, short-term GICs, treasury bills, and commercial papers. (1 week)
6. Compound interest, equivalent and effective interest rates, and its application in long-term investments or borrowings. (1 week)
7. Equivalent payment streams, economic value of payments and the concept of time value of money. (1 week)
8. Annuities, present and future value of annuities, periodic payments, and annuities application in registered savings accounts, mortgages, and business loans. (2 weeks)
9. Bonds and sinking funds. (2 weeks)
10. Amortization schedule, mortgage, and loan's balance. (1 week)

Weeks 14-15 Final Exam Period

**EVALUATION PROFILE**

Assessment	Percentage of final grade
Assignments	0-35%
Quizzes	0-35%
Midterm	30%
Final Exam	35%
Total	100%

**GRADING PROFILE**

A+	=	90-100	B+	=	77-79	C+	=	67-69	D	=	50-59
A	=	85-89	B	=	73-76	C	=	63-66	F	=	0-49
A-	=	80-84	B-	=	70-72	C-	=	60-62			

**Incomplete Grades**

Grades of Incomplete "I" are assigned only in exceptional circumstances when a student requests extra time to complete their coursework. Such agreements are made only at the request of the student, who is responsible to determine from the instructor the outstanding requirements of the course.

**Late Assignments**

Are at the discretion of the instructor, please consult with your instructor beforehand.

**Missed Exams/Quizzes/Labs etc.**

Make-up exams, quizzes and/or tests are given at the discretion of the instructor. They are generally given only in medical emergencies or severe personal crises. Some missed labs or other activities may not be able to be accommodated. Please consult with your instructor.

**Attendance**

Students are expected to attend all classes and associated activities, as specified by the delivery format.

**English Usage**

Students are expected to proofread all written work for any grammatical, spelling and stylistic errors. Instructors may deduct marks for incorrect grammar and spelling in written assignments.

**Electronic Devices**

Students may use electronic devices during class for note-taking only as specified by the instructor.

**On-line Communication**

Outside of the classroom, instructors will (if necessary) communicate with students using either their official Capilano University email or eLearn; please check both regularly. Official communication between Capilano University and students is delivered to students' Capilano University email addresses only.

**UNIVERSITY OPERATIONAL DETAILS****Tools for Success**

Many services are available to support student success for Capilano University students. A central navigation point for all services can be found at: <https://www.capilanou.ca/student-services/>

**Capilano University Security: download the [CapU Mobile Safety App](#)**

**Policy Statement (S2009-06)**

Capilano University has policies on Academic Appeals (including appeal of final grade), Student Conduct, Academic Integrity, Academic Probation and other educational issues. These and other policies are available on the University website.

**Academic Integrity (S2017-05)**

Any instance of academic dishonesty or breach of the standards of academic integrity is serious and students will be held accountable for their actions, whether acting alone or in a group. See policy and procedures S2017-05 Academic Integrity for more information: <https://www.capilanou.ca/about-capu/governance/policies/>

Violations of academic integrity, including dishonesty in assignments, examinations, or other academic performances, are prohibited and will be handled in accordance with the Student Academic Integrity Procedures.

**Academic dishonesty** is any act that breaches one or more of the principles of academic integrity. Acts of academic dishonesty may include but are not limited to the following types:

**Cheating:** Using or providing unauthorized aids, assistance or materials while preparing or completing assessments, or when completing practical work (in clinical, practicum, or lab settings), including but not limited to the following:

- Copying or attempting to copy the work of another during an assessment;
- Communicating work to another student during an examination;
- Using unauthorized aids, notes, or electronic devices or means during an examination;
- Unauthorized possession of an assessment or answer key; and/or,
- Submitting of a substantially similar assessment by two or more students, except in the case where such submission is specifically authorized by the instructor.

**Fraud:** Creation or use of falsified documents.

**Misuse or misrepresentation of sources:** Presenting source material in such a way as to distort its original purpose or implication(s); misattributing words, ideas, etc. to someone other than the original source; misrepresenting or manipulating research findings or data; and/or suppressing aspects of findings or data in order to present conclusions in a light other than the research, taken as a whole, would support.

**Plagiarism:** Presenting or submitting, as one's own work, the research, words, ideas, artistic imagery, arguments, calculations, illustrations, or diagrams of another person or persons without explicit or accurate citation or credit.

**Self-Plagiarism:** Submitting one's own work for credit in more than one course without the permission of the instructors, or re-submitting work, in whole or in part, for which credit has already been granted without permission of the instructors.

**Prohibited Conduct:** The following are examples of other conduct specifically prohibited:

- Taking unauthorized possession of the work of another student (for example, intercepting and removing such work from a photocopier or printer, or collecting the graded work of another student from a stack of papers);
- Falsifying one's own and/or other students' attendance in a course;
- Impersonating or allowing the impersonation of an individual;
- Modifying a graded assessment then submitting it for re-grading; or,
- Assisting or attempting to assist another person to commit any breach of academic integrity.

### **Sexual Violence and Misconduct**

All Members of the University Community have the right to work, teach and study in an environment that is free from all forms of sexual violence and misconduct. Policy B401 defines sexual assault as follows:

Sexual assault is any form of sexual contact that occurs without ongoing and freely given consent, including the threat of sexual contact without consent. Sexual assault can be committed by a stranger, someone known to the survivor or an intimate partner.

Safety and security at the University are a priority and any form of sexual violence and misconduct will not be tolerated or condoned. The University expects all Students and Members of the University Community to abide by all laws and University policies, including B.401 Sexual Violence and Misconduct Policy and B.401.1 Sexual Violence and Misconduct Procedure (found on Policy page <https://www.capilanou.ca/about-capu/governance/policies/>)

**Emergencies:** Students are expected to familiarise themselves with the emergency policies where appropriate and the emergency procedures posted on the wall of the classroom.

### **SCHOOL OF BUSINESS POLICIES**

To be added to the syllabus

### **COURSE LEVEL POLICIES**

To be added to the syllabus