CAPILANO UNIVERSITY COURSE OUTLINE	
Term: **Spring 2017**	Course No. **MATH 123**
Course: **CONTEMPORARY MATHEMATICS**	Credits: **3.0**
Instructor: **TBA**	

COURSE FORMAT: 3 hours of class time, plus an additional hour of supplemental activity delivered through online or other activities for a 15 week semester which includes 2 weeks for final exams.

PREREQUISITES: None.

Note: This is an approved Quantitative/Analytical course for baccalaureate degrees.

COURSE OBJECTIVES:

General: In this course, students will explore mathematical topics in order to improve quantitative reasoning and problem solving skills. Students will also develop an appreciation for mathematics as it applies to their studies, work and everyday life.

Student Learning Outcomes: On completion of the course, the successful student should be able to:

- apply different problem solving strategies to solve mathematical problems and identify common errors and misconceptions involving mathematical calculations;
- identify historical and cultural approaches to mathematics and represent numbers in a variety of numeration systems;
- evaluate rates, proportions, percentages and basic probabilities;
- calculate quantities and solve algebraic equations related to taxes, inflation and interest on loans including present value, future value and monthly payments;
- display, summarize, analyze and interpret statistical data using frequency tables, bar graphs, pie charts, histograms and line charts;
- calculate and interpret measures of central tendency and variation and compare different data sets with respect to these measures;
- use correct mathematical notation and terminology to present solutions and results.

REQUIRED COURSE MATERIALS:

Text: Pirnot, Tom. Mathematics All Around 5th Ed. Pearson Education, Inc., 2014.

Class Notes: Some instructors will have class notes available for purchase in the Bookstore.

Calculator:	Any basic calculator may be used for homework. For tests, a calculator will be provided by the instructor, where appropriate.

RECOMMENDED COURSE SUPPLEMENTS:

Student Solutions Manual:	Solutions manual for the odd numbered questions in the textbook comes bundled with custom text. Also available in the Math Learning Centre (BR289), or on a 3 hour reserve in the Library
Reference Texts:	Available in the Math Learning Centre (BR289).

COURSE CONTENT:

Topics	Text Reference	Weeks (approx.)
Problem Solving and Quantitative Reasoning	Chapter 1	2
Historical and Cultural Approaches to Mathematics	Chapter 5	2
Percentages, Taxes, Inflation and Interest Rates	Chapter 8	2.5
Descriptive Statistics & Probability	Chapter 14	2.5
Recreational Mathematics and Geometry	Chapter 9	2
Tests and Review		2
Final Exam period		2

EVALUATION PROFILE:

Final grades for the course will be computed based on the following schedule:

Term Tests (20% each)	40%
Projects, quizzes, in-class assignments, take-home assignments	25%
Final Exam	*25%
Personal Evaluation	10%
TOTAL	100%

*   If the percentage achieved on the Final Exam is higher than the percentage achieved on the Term Tests component, then the Final Exam weight will be increased to 40% and the Term Tests will be decreased to 25%.

PERSONAL EVALUATION:

In the absence of exceptional circumstances, which are evaluated at the instructor's discretion, the personal evaluation component of the final grade will be pro-rated to the rest of the grade. For example, a 10% personal evaluation component would be determined by dividing the remaining mark

out of 90 by 9. The most common circumstance justifying an increased personal evaluation mark is a student's improved performance in the final examination relative to the term work, which the instructor feels justifies an elevated letter grade.

SUPPLEMENTAL 4TH HOUR ACTIVITY:
Each section has, in addition to the 3 hours of scheduled classroom time per week, a supplemental activity. This activity might be a scheduled tutorial or lab, an on-line activity, a group meeting, or some other activity as indicated by the instructor. Students are expected to participate in this additional activity. If this is not possible, students should consult their instructor to determine how this missed activity can be completed. It is in the student's best interest to ensure that any missed course activity is completed.

GRADING PROFILE: Letter grades will be assigned according to the following guidelines:

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%	

Students should refer to the University Calendar for the effect of the above grades on grade point average.

TESTS: Dates for tests will be announced beforehand in class.

HOMEWORK: It is expected that students spend at least 8 hours per week doing course work outside of class time.

OPERATIONAL DETAILS:

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

Attendance: If classes are missed, it is the student's responsibility to become aware of all information given out in the classes or tutorials, including times of examinations and assignment deadlines.

Missed Exams: Normally, a score of zero will be given for a missed exam, test, quiz, lab, etc. In some exceptional situations, the student will be permitted to write a make-up test, defer the lab to a later date or to replace the score by other marks.
The situations in which a score of zero may be avoided are those for which the student meets **all** of the following conditions:

- Circumstances clearly beyond the control of the student caused the exam, test, quiz, lab, etc. to be missed. Such circumstances include serious illness or injury, or death of close family member. They do **NOT** include forgetting about the test, lack of preparation for the test, work-related or social obligations.

- The student has notified the instructor (or the Science, Technology, Engineering & Mathematics office staff, if the instructor is not available) about the missed exam, test, quiz, lab, etc. Such notification **MUST** occur in advance, if possible, or at the latest, on the day of the exam, test, quiz, lab, etc.

- Proof of the circumstances is provided. Proper proof of illness or injury requires a medical certificate from a doctor.

- The student has been fully participating in the course up until the circumstances that prevented the writing of the exam, test, quiz, lab, etc. **Fully participating means attending almost all of the classes and turning in almost all assignments in the course.**

The options offered to the student who meets the four conditions are decided by the instructor. They will not necessarily meet the convenience of the student.

Final Exam Period: Students should note that the final exam period is **TBA** and that they can expect to write exams at any time during this period. Exam times will not normally be rescheduled because of holidays, work, or other commitments. While efforts are made to spread exams throughout the exam period, an individual's particular course combination may result in exams being scheduled close together, or spread widely through the entire exam period.

Cheating/Plagiarism: Students caught cheating on a test will normally receive a grade of "F" for the course and may be expelled from the University. Plagiarism (including the copying of any part of assignments, laboratory reports and essays) is a serious offence and is a form of cheating.

Incomplete Grades: Incomplete grades ("I") are given only when special arrangements have been agreed upon with the instructor prior to the end of the semester. Since "I" grades are granted only in exceptional circumstances (usually health problems), their occurrence is rare.

English Usage: Students are expected to use correct standard English in their written and oral assignments, exams, presentations and discussions. Failure to do so may result in reduced grades in any part of the Evaluation Profile. Please refer to the guidelines provided in the Capilano Guide to Writing Assignments (available from the University Bookstore).

Mathematical Language: Use of proper Mathematical terminology and notation is an important component of Mathematics. Marks may be deducted for improper usage. For full details, please refer to the Math Department Style Guide at: http://www.capilanou.ca/math/Math-Department-Style-Guide/

Mathematics Learning Centre: Instructional help and Mathematics learning aids, such as audio visual materials, computer software and reference texts are available to students in the Birch Building (BR289).

Emergency

Procedures: Please read the emergency procedures posted on the wall of the classroom.