



**School of Arts & Science  
MATHEMATICS DEPARTMENT**

**MATH 109  
Finite Mathematics  
Winter 2015**

**COURSE OUTLINE**

This course provides an introductory survey to material that is of particular interest to business, biology and social science students. Topics include a review of linear equations; sets and counting, including permutations and combinations; probability, including Bayes' Theorem, random variables, expected value and the binomial distribution; matrix operations; solving systems of linear equations using a variety of methods, including Gauss-Jordan elimination and inverse matrices; linear programming using a geometric approach; Markov chains; annuities and amortization of loans; and basic logic, including implication and equivalence.

**1. Instructor Information**

(a)	Instructor:	Susan Kinniburgh
(b)	Office Hours:	Mon 1:30-2:20, Tues 5:30-6:20, Wed 12:30-1:20 and 4:30-5:20, Thurs 2:30-3:20
(c)	Location:	E266
(d)	Phone:	250-370-3504
(e)	Email:	KinniburghS@camosun.bc.ca
(f)	Website:	<a href="http://online.camosun.ca">http://online.camosun.ca</a> (D2L)

**2. Intended Learning Outcomes**

Upon completion of this course the student will be able to:

1. Solve linear system problems using the Gauss-Jordan Elimination Method and the Inverse Matrix Method.
2. Solve basic counting problems using Venn Diagrams, and permutations and combinations.
3. Perform calculations that apply the basic properties and concepts of probability, including Bayes' Rule and Markov Chains.
4. Compute and interpret descriptive statistics.
5. Perform computations using the binomial distribution.
6. Derive simple annuity formulas and apply them to solve amortization problems.

**3. Required Materials**

*Finite Mathematics and its Applications*, custom edition for Camosun College

**Note: No electronic devices of any sort (e.g. cellphones, ipods, translators) other than the Sharp EL531 or TI BAII+ are allowed on tests.**

**4. Course Content and Other Course Information**

**Course Content**

We will cover Chapters 1-9 in the textbook. The approximate schedule of topics is given in the Pace Schedule on D2L.

## Attendance

*Attendance is required.* Showing up to classes is the easiest and most important thing you can do to help you succeed the course. If you feel yourself falling behind at any point during the term, then please do not hesitate to come to speak to me.

## Math Lab

You can get **free face-to-face tutoring** from our instructional assistant in the Math Lab **E224**. Lab hours are posted on the lab doors and on the Math Department page <http://camosun.ca/learn/programs/math/>. Find out what hours work for you best (when the lab is the least busy).

## Desire2Learn (D2L)

This class has the assistance of D2L, an online course management system. All course related materials, such as slides, Lab materials, practice tests and their answers, grades, discussion forum and announcements will be available on D2L. It is your responsibility to check it regularly.

**D2L URL:** <http://online.camosun.ca>

e.g., John Smith, birthday: April 7, 1989

**Username:** firstname.lastnameof-birth

Username: john.smith07

**Password:** MMDDYY of your birthdate

Password: 040789

## 5. Basis of Student Assessment (Weighting)

Assignments	10%
In Class Assignments	5%
3 Tests	35%
Cumulative Final Exam (3 hrs)	50%

Please refer to the **Pace Schedule** for tentative *tests dates* and lab/homework *due dates*.

**All tests must be written during the scheduled times. In the event that you missed a test or did poorly on a test due to family emergency or illness, the weight of the test will be put on the final exam if the instructor is notified immediately. Final examinations will be scheduled by the college and they will take place during April 13 - 21. You must be available to write the final examination at the scheduled time. Holidays or scheduled flights are not considered as emergencies.**

## 6. Grading System

Percentage grades will be converted to letter grades as follows:

A+	[90, 100]	B+	[77, 80)	C+	[65, 70)	F	[0, 50)
A	[85, 90)	B	[73, 77)	C	[60, 65)		
A-	[80, 85)	B-	[70, 73)	D	[50, 60)		

## 7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

It is the student's responsibility to become familiar with the content of Academic Policies and Procedures at <http://camosun.ca/about/policies/education-academic/e-2-student-services-&-support/e-2.5.pdf> There are a variety of services available for students to assist them throughout their learning. This information is available in the College calendar, at Student Services or the College web site at [camosun.bc.ca](http://camosun.bc.ca).