	School of Arts & Science **MATHEMATICS DEPARTMENT** **MATH 109 section 002** **Finite Mathematics** **January 2009**

COURSE OUTLINE

1. Instructor Information

(a)	Instructor:	Natalie Sawchuck		
(b)	Office Hours:	Monday, Wednesday, Friday 9:30-11:30am, Appointments otherwise		
(c)	Location:	Ewing 250		
(d)	Phone:	250-370-3321		
(e)	Email:	SawchuckN@camosun.bc.ca		

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. Use the Simplex Method to solve linear programming problems, including those with mixed constraints.
3. Solve basic counting problems using permutations and combinations.
4. Perform calculations that apply the basic properties and concepts of probability, including Bayes' Rule and Markov Chains.
5. Compute and interpret descriptive statistics.
6. Perform computations using the normal and binomial distributions.
7. Determine the validity of arguments by using truth tables and by using the basic laws of logic.
8. Derive simple annuity formulas and apply them to solve amortization problems.

3. Required Materials

(a)	Texts	Finite Mathematics, Sixth or Seventh Edition, by Howard L. Rolf

4. Course Content and Schedule

CHAPTER 1: FUNCTIONS AND LINES

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#   Text      Time
1   1.1, 1.2  1    Functions, Graphs and Lines
2   1.3       1    Mathematical Models and Applications of Linear Functions
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CHAPTER 2: LINEAR SYSTEMS

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#   Text   Time
3   2.1    1.5  Systems of Two Equations
4   2.2    1.5  Systems with Three Variables; Matrix Representations
                   of Linear Systems
5   2.3    4    Gauss-Jordan Method for General Systems
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CHAPTER 8: STATISTICS

#	Text	Time	
35	8.1	1	Frequency Distributions
36	8.2	1	Measures of Central Tendency
37	8.3	2	Dispersion: Range, Variance & Standard Deviation
38	8.4	1	Random Variables and Probability Distributions of Discrete Random Variables
39	8.5	1	Expected Value
40	8.7	1	Normal Distribution
41	8.7	1	Using the Normal Distribution to Approximate the Binomial Distribution

CHAPTER 5: MATHEMATICS OF FINANCE

#	Text	Time	
42	5.2	1	Compound Interest
43	5.3,5.4	2	Annuities
		1	**TEST 4, Lessons 35 to 43**

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5.   Course Evaluation

(a)	Take-home tests	15%
(b)	Term tests	35%
(c)	Final exam	50% or 100% if higher than term mark.

1. TERM MARK. You will be doing a number of take-home tests. These can
   be done in consultation with other students in your class, but with
   the help of nobody else. They will be overdue if not handed in at the
   beginning of the class due, but can be handed in up to one day late with a
   10% mark deduction on your score.

   If your take-home test scores are satisfactory (overall average is at least 65%),
   you will be allowed to throw out your worst test before the average is calculated,
   provided **that you have handed in all take-home tests on time and have written
   all class tests.** If you miss an in-class test for ANY reason, you will get a zero.
   There will be no make-ups. But with satisfactory take-home test scores
   and class participation, that zero will be tossed out.

2. TERM TESTS. **TEST 1 – WEDNESDAY, JANUARY 28TH**
   TEST 2 – WEDNESDAY, FEBRUARY 18TH
   TEST 3 – TUESDAY, MARCH 17TH
   TEST 4 – FRIDAY, APRIL 3RD

3. FINAL EXAM. The final exam for this course is to be written by all
   students on the day and time scheduled. The examinations for this
   term will be held April 14-22, 2009. Please make sure you are available
   during this period.

4. MARK FOR THE COURSE. Provided the student has at least 50% on one term
   test the course mark is the larger of:

   a) The average of your term percentage and your final exam percentage
   b) Your final exam percentage

The Math Department reserves the right to raise your course mark if it is judged that your in-class tests and final exam were more difficult than those in other years or other sections.

6. Grading System

Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

7. Recommended Services to Assist Students to Succeed Throughout the Course

Please ask and answer questions in class. Don't worry about answering a question wrong – wrong answers give me a chance to correct misconceptions.

Please come to my office (Ewing 250) for help. You may make an appointment, or just drop by from 9:30-11:30am Monday, Wednesday and Friday.

Try to find one or more people in this class who you can study with. One of the best ways to solidify a concept is to try to explain it to someone else.

Free tutoring is available in the Math Lab, Ewing 224. Check online for hours.

Try to complete your homework every day and please take advantage of all the help available to you.

LEARNING SUPPORT AND SERVICES FOR STUDENTS

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.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services and on the College web site in the Policy Section.