



**School of Arts & Science  
MATHEMATICS DEPARTMENT**

**MATH 112 - 02  
Fundamentals of Mathematics 1  
2006F**

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## COURSE OUTLINE

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The Approved Course Description is available on the web @  
<http://britton.disted.camosun.bc.ca/math112/math112.pdf>

Ω Please note: this outline will be electronically stored for five (5) years only.  
It is strongly recommended students keep this outline for your records.

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### 1. Instructor Information

(a)	Instructor:	Jill Britton		
(b)	Office Hours:	Daily 9:30-10:20; T,W,H,F 1:30-2:30		
(c)	Location:	E246		
(d)	Phone:	370-3471	Alternative Phone:	652-53126 (home)
(e)	Email:	<a href="mailto:jbritton@camosun.bc.ca">jbritton@camosun.bc.ca</a>		
(f)	Website:	<a href="http://britton.disted.camosun.bc.ca/">http://britton.disted.camosun.bc.ca/</a>		

[thorleifson@camosun.bc.ca](mailto:thorleifson@camosun.bc.ca)

### 2. Intended Learning Outcomes

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

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

1. Use truth tables to establish the equivalence of compound propositions and to examine the validity of arguments.
2. Use Venn diagrams to solve counting and probability problems.
3. Use permutations and combinations to solve counting and probability problems.
4. Solve probability problems involving independent events.
5. Use tree diagrams to solve probability problems involving events that are not independent with a visual extension to Bayes' rule.
6. Perform calculations involving Binomial and Normal distributions.
7. Approximate Binomial distribution questions using an appropriate Normal distribution.
8. Research math topics suitable to the elementary classroom and present results in portfolio form. (Examples of such topics would be: prime numbers, magic squares, golden ratio, Fibonacci sequence, binary numbers, Pascal's triangle, the conics, line designs, Moire patterns, curves of constant width, roulettes, fractals, and recreational topology.)

### 3. Required Materials

(a)	Texts	FINITE MATHEMATICS, 8th Edition (S. T. Tan)
(b)	Other	SUPPLEMENTARY MATERIAL TO ACCOMPANY FINITE MATHEMATICS, 8th Edition (Jill Britton)

### 4. Course Content and Schedule

(Can include: class hours, lab hours, out of class requirements and/or dates for quizzes, exams, lectures, labs, seminars, practicums, etc.)

<p><u>Term Mark:</u> (75 marks)</p> <p>Each student's numerical term mark will be based on five (5) class tests.</p> <p>Dates: Sept 25 [ Symbolic Logic, 6.1 ]          Oct 10 [ 6.2 - 6.4 ]          Nov 10 [ 7.1 - 7.5 to Tree Diagrams ]          Nov 20 [Tree Diagrams, 8.1 - 8.3 ]          Dec 1 [ 8.4 - 8.6 ]</p> <p><u>Investigating Patterns:</u> (25 marks)</p> <p>This material will be covered during the weeks of Oct 2, Oct 9, Oct 16, Oct 23, Nov 27, and Dec 4. Assessment will be based on a portfolio of class and assigned work. Attendance is compulsory. One mark will be deducted for each absence from class.</p> <p><u>Comprehensive (3 hr) Final Examination:</u> (75 marks)</p> <p>Date: Examination Period (December 11-16 &amp; 18-19)</p> <p>*****</p> <p>Should a student fail to write a test(s), a mark of zero will be awarded for that test(s). Individual students will not be awarded a passing grade until they have completed the "Investigating Patterns" component satisfactorily. The numerical mark awarded shall be the <b>SUM</b> of the mark on "Investigating Patterns" plus the <b>greater</b> of:</p> <p>(1) the <b>average</b> of the term and final exam marks          (2) the final exam mark</p> <p>Letter grades will be awarded as follows:          95-100 <b>and</b> greater than 90 average during term (A+), 90-94 (A), 85-89 (A-), 80-84 (B+), 75-79 (B), 70-74 (B-), 65-69 (C+), 60-64 (C), 50-59 (D), &lt; 50 (F)</p> <p>*****</p>
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### 5. Basis of Student Assessment (Weighting)

(Should be linked directly to learning outcomes.)

(a)	Assignments	0% (part of portfolio)
(b)	Quizzes	
(c)	Exams	75% (see details above)
(d)	Other (eg, Attendance, Project, Group Work)	25% (portfolio)

## 6. Grading System

(No changes are to be made to this section, unless the Approved Course Description has been forwarded through EDCO for approval.)

### Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
95-100	A+		9
90-94	A		8
85-89	A-		7
80-84	B+		6
75-79	B		5
70-74	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

### Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at [camosun.ca](http://camosun.ca) or information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete:</i> A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	<i>In progress:</i> A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	<i>Compulsory Withdrawal:</i> A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy E-1.5 at [camosun.ca](http://camosun.ca) for information on conversion to final grades, and for additional information on student record and transcript notations.

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

**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](http://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.