CAMOSUN COLLEGE	***School of Arts & Science*** ***MATHEMATICS DEPARTMENT*** **MATH 109-002** **Finite Mathematics** **2006F**

COURSE OUTLINE

The Approved Course Description is available on the web @ _____

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.*

1. Instructor Information

(a)	Instructor:	Rich Tschritter		
(b)	Office Hours:	Mon & Wed 10:30-12:00, Tues& Thurs 12:00-1:00,Fri 9:30-11:30		
(c)	Location:	CBA 147		
(d)	Phone:	370 4448	Alternative Phone:	475-0659 (home)
(e)	Email:	Tschritter@camosun.bc.ca		
(f)	Website:			

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. 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- Rolf sixth edition
(b)	Other	

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.)

Math 109 Core Material

By studying the following core material, you will be preparing yourself for at least 90 percent of the questions on any term test or the final exam. Moreover, any non-core questions will be similar to ones done in class and/or the homework.

Test 1: Functions, Lines & Linear Systems – 30-36 marks

1. Find and/or graph a linear function given basic information about that function (4 marks).
2. Solve a system of linear equations graphically (4 marks).
3. Recognize whether or not an augmented matrix is in reduced echelon form, and if not, get it there (2 marks).
4. Solve a system of linear equations using the Gauss-Jordan method (2 or 3 questions, 6-8 marks total). Note:
   - Interchanging rows is OK.
   - Do not shortcut the process by using the abbreviated method (reverse substitution).
   - You should document your steps - notes like $-3R1+R2 \rightarrow R2$.
   - If there are an infinite number of solutions, give your answer in parametric form. You must use the "classical" method as done in class (step 1: isolate the leading terms, step 2: …).
5. Matrix operations (2-4 marks).
6. Either:
   a) Calculate the inverse of a matrix (6 marks).
      - You should be able to recognize when a matrix does not have an inverse.
      - You may be asked to show all the steps leading up to the augmented matrix. If not, start immediately with it.
      - For those of you who have studied determinants in another Math course, you may not use determinants to calculate the inverse.

   b) Solve a system of linear equations using the Inverse Matrix Method (8marks).
      - Omit the steps leading up to the augmented matrix.
7. Applications chosen from throughout the notes and homework. At least two questions will be chosen from the following list :
   - Cost, Revenue, and Profit (2-4 marks)
   - Supply, Demand & Equilibrium (2-4 marks)
   - Straight Line Depreciation (2-4 marks)
   - The Portfolio question, or one like it (5-8 marks)
   - The Traffic flow question (5-8 marks)
   - The Leontief Input-Output model (5-8 marks)

Test 2: Linear Programming, Sets/Counting – 30-36 marks

1. Solve a Linear Programming Problem using a geometrical approach (4 to 6 marks).This technique includes finding the vertices of the feasible region using algebraic techniques, then testing each vertex to determine which one will yield the largest value of the objective function. *Note: do not use the geometrical approach unless specifically asked.*
2. The Simplex Method – a Standard Maximization Problem (6-8 marks).
3. A variation of the above, where the constraints are mixed or the function is to be minimized (3-5 marks).
4. A second variation where there are multiple solutions, where the function has no maximum, or where there is no solution (2-3 marks).
5. From a Venn Diagram involving the sets A , B , and C , identify the number of elements in such sets as $(A \cap B') \cup C$ (1-2 mark).
6. Consider the following sets: A , B , C , $A \cap B$, $A \cap C$, $B \cap C$, and $A \cap B \cap C$. Find the number of elements in one of them, given the number of elements in all the rest (2 marks).

7. Counting problems where in any one question one or more of the following three concepts will be involved:
   - The Fundamental Counting Principle of Multiplication
   - Permutations, simple permutations or more complex ones where elements are non distinguishable
   - Combinations

   There will be 3 to 5 questions, 8 to 10 marks total.

Test 3: Probability & Logic -30-36 marks

1. Equally likely events. A question or two to find $P(\text{Event}) = \frac{\text{Number of favourable outcomes}}{\text{Total number of outcomes}}$.

   Remember that the above is true iff the events are equally likely. You may have to use the counting techniques of the previous test (4 to 6 marks).
2. Compound events: where you would have to use $P(A \cup B) = P(A) + P(B) - P(A \bigcap B)$ (2-3 mark).
3. Conditional Probability: a question where you would have to use $P(B \mid A) = \frac{P(A \cap B)}{P(A)}$ or its alternate form $P(A \bigcap B) = P(A)P(B \mid A)$ (2-3 marks)
4. A question to tell whether events *A* and *B* were Mutually Exclusive (verify $A \bigcap B = \phi$) and/or Independent (verify either $P(A \mid B) = P(A)$ or $P(A \cap B) = P(A)P(B)$ (2 marks)
5. Bayes' Rule. You may be required to produce a tree diagram, and for more complicated questions it is recommended that you get your formula from the tree diagram (3-4 marks).
6. Bernoulli Experiments (3 or 4 marks). Be prepared for a question involving phrases like "at least" ($\geq$), "at most" ($\leq$), "no more than" ($\leq$), etc.
7. Markov Chains. (3 or 4 marks). Be able to get from one state matrix to the next, and also be able to find the steady-state matrix.

(over)

8. Be able to work with the alternate forms of $p \to q$:
   - *p* is sufficient for *q*
   - *q* if *p*
   - *p* only if *q*
   - *q* is necessary for *p*
   - *p* is not true unless *q* is
9. Be able to work with the alternate forms of $p \leftrightarrow q$:
   - *p* and *q* are equivalent
   - *p* is necessary and sufficient for *q*
   - if *p* then *q*, and conversely
10. Tautologies. Be able to quote any of the following by memory, and be able to verify any of them by a truth table (3 to 5 marks)
    - Contrapositive: $(p \to q) \leftrightarrow (\sim q \to \sim p)$
    - Negation Rule 1: $[\sim (p \to q)] \leftrightarrow (p \wedge \sim q)$
    - DeMorgan's Rules:
      - Negation Rule 2: $[\sim (p \wedge q)] \leftrightarrow (\sim p \vee \sim q)$
      - Negation Rule 3: $[\sim (p \vee q)] \leftrightarrow (\sim p \wedge \sim q)$
    - Associative Rules:
      - $[p \vee (q \vee r)] \leftrightarrow [(p \vee q) \vee r)]$
      - $[p \wedge (q \wedge r)] \leftrightarrow [(p \wedge q) \wedge r)]$
    - Commutative Rules:
      - $[p \vee q] \leftrightarrow [q \vee p], \quad [p \wedge q] \leftrightarrow [q \wedge p]$
    - Distributive Rules:
      - $[p \wedge (q \vee r)] \leftrightarrow [(p \wedge q) \vee (p \wedge r)]$
      - $[p \vee (q \wedge r)] \leftrightarrow [(p \vee q) \wedge (p \vee r)]$
    - Detachment: $[(p \to q) \wedge p] \to q$
    - Syllogism: $[(p \to q) \wedge (q \to r)] \to (p \to r)$
    - Disjunctive Syllogism: $[(p \vee q) \wedge \sim p] \to q$
    - Indirect Reasoning: $[(p \to q) \wedge \sim q] \to \sim p$
11. Valid Arguments. Be able to validate an argument by using one of the last 4 tautologies, or to be able to validate or disprove an argument by truth table (3 to 5 marks).

Test 4: Statistics 30-36 marks

1. Frequency distributions. Make up a histogram and/or pie chart (at most 2 points).
2. Measures of central tendency (2 - 4 marks):
   - Mean: Use $\mu = \frac{\sum x}{n}$, or $\frac{\sum fx}{n}$ which is the grouped data version
   - Median
   - Mode

3. Measures of dispersion (1or 2 questions, 3 - 5 marks total). Memorize and calculate:
   - Range
   - Mean absolute deviation: $\frac{\sum |x-\mu|}{n}$
   - Standard Deviation. You may be asked to quote the definitional formula $\sigma = \sqrt{\frac{\sum (x-\mu)^2}{n}}$ but for any calculation you **must** use the computational formula $\sigma = \sqrt{\frac{\sum x^2 - (\sum x)^2 / n}{n}}$ or the grouped data version $\sigma = \sqrt{\frac{\sum fx^2 - (\sum fx)^2 / n}{n}}$.
   - Variance (the square of the standard deviation)

Note also that if you are told that the data is from a sample, then

- *use* $\overline{X}$ *instead of* μ *for the mean*
- *use* S *instead of* σ *for the standard deviation, and put* $n-1$ *in the denominator instead of n.*

4. Discrete Random Variables, one example where you will be asked to give the probability distribution function and then graph the histogram (3-4 marks).
5. Expected Value, $E(x) = \sum xP(x)$ (2 - 3 marks).
6. Normal Distribution (4 - 8 marks). It is in this and only this topic that you could be asked to calculate a percentile.
7. Using the Normal Distribution to approximate the Binomial Distribution (4 - 8 marks). Memorize $\mu = np$, $\sigma = \sqrt{npq}$.

Note: Ch 5 will be tested on the Final Exam only!

1.Compound interest (2 - 3 marks). Memorize $A = P(1+i)^n$.

2.Ordinary Annuities (3 - 4 marks). Be able to find:

- Future value *A* or regular payment *R* to generate that amount. Memorize $A = R\left[\frac{(1+i)^n - 1}{i}\right]$.
- Present value *P* or regular payment *R* to pay off that amount. *Do not memorize the specific formula, but generate your answer by combining the compound interest and future value formulas.*

Final Exam - 3 hours long

1. The majority of the final exam will be a subset of the core of tests 1 to 4, with approximately the same number of questions from each with the exception of test 1 where because of the large review content there will be fewer.
2. You will not be asked questions related to Traffic Flow or the Leontief Input-Output Model

FIRST DAY HANDOUT FOR Rich Tschritter's MATH 109 STUDENTS

My office is CBA-156, my E-mail is: tschritter@camosun.bc.ca , my home phone is 475-0659.

Welcome to my class. I hope that the term goes well for you. Please take some time to read the following. I think you will find it helpful and informative.

A. SOME GENERAL COMMENTS

1. HOW IMPORTANT IS REGULAR ATTENDANCE? It is essential that you attend every class. If for some reason you miss a class, you will need to act quickly to get caught up. Get a copy of the notes from one of your classmates. Work through the notes very carefully.

2. PLEASE try to arrive a minute or two before class is scheduled to begin. This will give you an opportunity to get your notes out, and to prepare mentally for the class.

3. HOW MUCH TIME SHOULD I BE SPENDING ON MATH EVERY WEEK? If up to date, a typical student will need to spend a minimum of 60 minutes per day. It is highly preferable that this be done before the next class.

4. TEXTBOOK. We have just moved to the sixth edition of Finite Mathematics by Howard Rolf. However, you may use without trouble the fifth edition. When I assign homework from the sixth edition, I will tell you how to find the same questions in the fifth.

5. CALCULATORS. Graphing and programmable calculators may not be used on any test or on the final exam.

B. HOW TO GET HELP

1. Please come to my office (CBA 156) for help. You may make an appointment, or just drop in. My official office hours are from 10:30 am-12:30 pm Monday & Wed; 12:30 pm to 1;20 pm on Tues and Thursday; & 9:30-11:20 Friday. When you come, bring your notes from the lesson where you are having problems. If you missed that class, I would appreciate your getting a copy from someone. I like to refer to the notes when I am giving help.

2. I strongly urge you to find one or more people in this class who you can study with. For many people, learning mathematics in a social setting with their peers can be very rewarding and productive.

3. Free tutoring is available in The Math lab, Tech 142 bldg. The hours should be posted on the door. Although the lab is a great place to go when you are confident of the subject matter in general but you just need a little push in the right direction, I would strongly suggest that you use me first, especially at the beginning of the course. Between us we can work out a strategy for determining what kinds of questions you should always bring to me, and what kinds could be safely answered in the lab.

(over)

C. EVALUATION PROCEDURES FOR THE COURSE

1. TERM MARK. You will be doing a number (4) 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 on the due date, but can be handed in up to one day late with only a 10 % mark deduction.

The term mark is determined by taking 35% of in-class tests and 15% of T-H-T. However, if your take-home test scores are satisfactory (overall average is at least 70%), and you have handed in **all** homework and written **all** TESTS you will be allowed to throw out your worst test before the average is calculated.

If you miss an in-class test for ANY reason, you will get a zero. There will be no make-ups. You must contact me to see if this can be the test score we throw out.

2. 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 in April 2006. Please make sure you are available during this period.

3. MARK FOR THE COURSE. Your course mark is the larger of (**providing you have attended regularly and handed in all assignments**):

a) The average of your term mark and your final exam mark (each is worth 50%)
b) Your final exam mark

4. LETTER GRADE. Your course mark is then translated to a letter grade using the following table:

A+ 95%	B+ 80%	C+ 65%
A 90%	B 75%	C 60%
A- 85%	B- 70%	D 50%

5.Important dates:

Sept 19 Fee deadline

Oct 9 Thanksgiving, holiday

Oct 10 Last day for students who have extended health &/or dental benefits to opt out of students benefits plan

Nov 7 Last day to withdraw without a failing grade or change to audit

Nov 13 Remembrance day, holiday

Dec 9 Last day of instruction

Dec 11-16 and 18-19 FINAL EXAMS

COURSE OUTLINE FOR TSCHRITTER'S MATH 109 Fall 2006

Text: Finite Mathematics
Sixth Edition
Author – Howard Rolf

CHAPTER 1 : FUNCTIONS AND LINES

#	Text	Time	
1	1.1,1.2	1	Functions, graphs and lines
2	1.3	1-	Mathematical Models and applications of linear functions

CHAPTER 2 ; LINEAR SYSTEMS

#	Text	Time	
3	2.1	1.5+	Systems of two equations
4	2.2	2.5-	Systems of three variables; Matrices
5	2.3	4- -	Gauss-Jordan method for general systems
		TAKE-HOME TEST H1	
6	2.4	.5	Matrix Operations
7	2.5	.5++	Multiplication of matrices
8	2.6	2 - -	Inverse of a Matrix
9	2.7	1+	Leontief Input – Output Model
		1	TUTORIAL
		1	TEST # 1 , Lessons 1 to 9

CHAPTER 3 : LINEAR PROGRAMMING

#	Text	Time	
10	3.1	.5	Linear Inequalities in two variables
11	3.2	.5	Systems of inequalities, a geometric picture
12	3.3	1+++	Linear Programming: a geometric approach

CHAPTER 4 : LINEAR PROGRAMMING: THE SIMPLEX METHOD

#	Text	Time	
13	4.1	1 - -	setting up Simplex Method
14	4.2	2 - -	Simplex Method
15	4.4	1+	Mixed Constraints
16	4.5	1	Multiple, Unbounded, and no solutions

CHAPTER 6 : SETS AND COUNTING

#	Text	Time	
17	6.1	.5++	Sets
18	6.2	.5++	Counting Elements in a Subset Using Venn diagrams
19	6.3	2 - -	Basic Counting Principles
		TAKE HOME TEST H2	
20	6.4	1 - -	Permutations
21	6.5	1	Combinations
22	6.6	1	a Mixture of Counting problem
		1	TUTORIAL
		1	TEST #2 , LESSONS 10 to 22

CHAPTER 7 + SECTION 8.6(PROBABILITY)

#	Text	Time	
23	7.1	1 - -	introduction to Probability
24	7.2	1 - -	Equally Likely Events
25	7.3	1+	Compound Events: union, intersection, & complement
26	7.4	2	Conditional Probabilty

27	7.5	1+	Independent Events
28	7.6	1	Baye's Rule
29	8.6	1	Binomial Distribution
30	7.7	2 - -	Markov Chains

TAKE – HOME TEST H 3

CHAPTER 10 : LOGIC

#	Text	Time	
31	10.1	1 -	Statements
32	10.2	1++	Conditional Statements
33	10.3	1- -	Equivalent Statements
34	10.4	1+	Valid Arguments

1 TUTORIAL

1 TEST # 3 , LESSONS 23 to 34

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 & Probabilty distributions of Discrete Random Variables
39	8.5	1--	Expected Value
40	8.7	1+++	Normal Distribution
41	8.7	1	Using Normal distribution to approximate Binomial distribution

TAKE-HOME TEST H4

CHAPTER 5 : MATHEMATICS OF FINANCE

#	Text	Time	
42	5.2	1	Compound Interest
43	5.3-5.4	2 - -	Annuities

TUTORIAL

1 TEST 4 , LESSONS 35 to 43

3 ? REVIEW

Length of Semester = 68 hours

Math 109 Conversion Table, Fall /06

For Finite Mathematics by Howard L. Rolf

Between new text (Sixth Edition) old text (Fifth Edition) and the older text (Fourth Edition)

Lesson			Assignment (Tschritter's Classes)
1	New Old Older	1.1,1.2 1.1, 1.2 1.1, 1.2	1.2: 1 fours 65, 71, 75, 85, 87 1.2: 1 fours 65, 71, 81, 83 1.2: 1 fours 65, 67, 75, 77
	New	1.3	9, 15, 17, 37, 39

2	Old	1.3	Same
	Older	1.3	9, 15, 17, 33, 35
3	New	2.1	1, 17, 29, 31, 41, 43, 49, 51
	Old	2.1	1, 17, 29, 31, 41, 43, 49
	Older	2.1	Same
4	New	2.2	37, 41, 49, 51, 53, 63
	Old	2.2	Same
	Older	2.2	Same
5	New	2.3	1 odd 15, 19, 21, 23, 29, 31, 41, 62, 82
	Old	2.3	1 odd 15, 19, 21, 23, 29, 31, 41, 62, 78
	Older	2.3	Same
6	New	2.4	5 odd 15, 23 odd 39
	Old	2.4	5 odd 15, 23 odd 37
	Older	2.4	Same
7	New	2.5	13 fours 53, 63, 65
	Old	2.5	13 fours 49, 55, 57
	Older	2.5	Same
8	New	2.6	3, 9, 13, 27, 31, 33, 37
	Old	2.6	Same
	Older	2.6	Same
9	New	2.7	3, 5, 9a, 13, 17, 21
	Old	2.7	17
	Older	2.7	Same
10	New	3.1	1, 3, 15, 19, 21
	Old	3.1	Same
	Older	3.1	Same
11	New	3.2	9, 19, 21, 31
	Old	3.2	Same
	Older	3.2	Same
12	New	3.3	7, 23, 43
	Old	3.3	3, 19
	Older	3.3	Same
13	New	4.1	1, 3, 5, 9, 13, 19
	Old	4.1	Same
	Older	4.1	Same
14	New	4.2	1, 3, 7, 13, 17, 21, 27
	Old	4.2	1, 3, 5, 7, 19, 25
	Older	4.2	Same
15	New	4.4	5, 7, 23, 29, 31
	Old	4.4	5, 7, 23, 29
	Older	4.4	Same
16	New	4.5	1, 3, 5, 9, 13, 29
	Old	4.5	1, 3, 5, 9, 13
	Older	4.5	Same
17	New	6.1	55, 57, 59, 61, 63, 65, 67, 69
	Old	6.1	Same
	Older	5.1	55, 57, 59, 61, *, 63, 65, 67 * means exercise not in old text
18	New	6.2	3, 9, 13, 15, 19, 21, 33
	Old	6.2	3, 9, 13, 15
	Older	5.2	Same
19	New	6.3	1 fours 45
	Old	6.3	1 fours 41
	Older	5.3	Same
20	New	6.4	1 fours 61
	Old	6.4	same
	Older	5.4	Same
21	New	6.5	1 odd 11, 19, 23, 27, 31, 37, 39, 43, 47, 51, 65, 71
	Old	6.5	1 odd 11, 19, 23, 27, 31, 37, 39, 43, 47, 51
	Older	5.5	1 odd 11, 13, 17, 21, 25, 27, 29, 33, 37, 41
22	New	6.6	1 odd 21, 25
	Old	6.6	Same
	Older	5.6	Same

23	New	7.1	5 odd 13, 23, 25
	Old	7.1	13, 23, 25
	Older	6.1	11, 21, 23
24	New	7.2	5, 7, 9, 15, 19, 21, 23, 25
	Old	7.2	5, 7, 9, 15, 19, 21, 23
	Older	6.2	5, 7, 9, 15, 17, 19, 21
25	New	7.3	5, 7, 11, 17, 21, 25, 27, 31, 33
	Old	7.3	Same
	Older	6.3	Same
26	New	7.4	3, 5, 9, 19, 21, 23, 27, 31, 35
	Old	7.4	Same

	Older	6.4	Same
27	New Old Older	7.5 7.5 6.5	1 odd 31 Same 1, 3, 5, *, *, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27
28	New Old Older	7.6 7.6 6.6	1 odd 23, 29 1, 3, 5, 11, 13, 15, 17, 19, 21, 23 1, 3, 5, 7, 9, 11, 13, 15, 17, 19
29	New Old Older	8.6 8.6 6.7	1, 5, 9, 27, 31, 35, 43, 47, 51, 55, 59 Same 1, 5, 9, 17, 21, 25, 29, 33, 37, 41, 45
30	New Old Older	7.7 7.7 6.8	3, 5, 11, 13, 25, 37, 39 3, 5, 11, 13, 25 Same
31	New Old Older	10.1 10.1 10.1	1 odd 23 Same Same
32	New Old Older	10.2 10.2 10.2	1 odd 23 Same Same
33	New Old Older	10.3 10.3 10.3	Memorize notes, 11, 13 Same Same
34	New Old Older	10.4 10.4 10.4	1 odd 15, 23 odd 27 Same Same
35	New Old Older	8.1 8.1 7.1	3, 9, 11, 13, 19 3, 5, 7, 9, 15 Same
36	New Old Older	8.2 8.2 7.2	9, 13, 15, 23, 27, 33, 39 Same Same
37	New Old Older	8.3 8.3 7.3	5, 11, 17, 31, 37, 39 5, 11, 17, 31, 33 Same
38	New Old Older	8.4 8.4 7.4	5, 19, 25, 29, 31 5, 19, 25, 29 Same
39	New Old Older	8.5 8.5 7.5	1, 9, 21, 29, 31 1, 9, 21, 29 1, 9, 17, 25
40	New Old Older	8.7 8.7 7.6	1, 7, 15, 19, 23, 27, 33, 35, 39, 43, 47, 51, 55, 61, 69, 97, 111 Same 1, 7, 15, 19, 23, 27, 33, 35, 39, 43, 47, 51, 55, 61, 69, 75, 83
41	New Old Older	8.7 8.7 7.7	75, 81, 83, 85, 89, 93, 101 Same 15, 21, 23, 25, 27, 31, 35
42	New Old Older	5.2 5.2 8.2	3, 13, 19, 23, 27, 41, 51 Same Same
43	New Old Older	5.3, 5.4 5.3, 5.4 8.3, 8.4	5..3: 5, 15, 23, 27, 37, 41 + 5.4: 9, 25, 35, 37, 47 Same 5.3: 23, 27 + 5.4: 9, 39

5. Basis of Student Assessment (Weighting)

(Should be linked directly to learning outcomes.)

(a)	Assignments	15%
(b)	Quizzes	35%
(c)	Exams	50%
(d)	Other (eg, Attendance, Project, Group Work)	

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** or information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	*Incomplete*: 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	*In progress*: 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	*Compulsory Withdrawal:* 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** 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.

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.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED