

# CAMOSUN COLLEGE School of Arts & Science Department of Mathematics & Statistics

MATH-109-002 Finite Mathematics Winter 2020

# **COURSE OUTLINE**

The course description is online @ http://camosun.ca/learn/calendar/current/web/math.html

 $\Omega$  Please note: This outline will <u>not</u> be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.

#### 1. Instructor Information

(a)	a) Instructor		Chedo Barone		
(b)	o) Office hours		Mon, Wed, Fri: 12:30 – 1:20, Tue, Thur: 2:30-3:20		
(c)	c) Location		E266		
(d)	Phone	250-3	370-3504	Alternative:	
(e)	E-mail		baronec@camosun.bc.ca		
<b>(f)</b>	Website	•	D2L		

### 2. Intended Learning Outcomes

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

- 1. Solve counting problems using sets and/or the multiplication principle, and recognize and solve problems involving permutations and combinations.
- Apply the basic properties and concepts of probability to solve problems from fields such as medicine and quality control. Determine the probability distributions for random variables and calculate expected values. Where appropriate, evaluate probabilities using the binomial distribution. Explore systems evolving from one state to another using Markov chains.
- Solve linear systems of equations using techniques, including Gauss-Jordan elimination and inverse matrices.
- 4. Solve linear programming problems using a graphical approach.
- 5. Derive simple annuity formulas and use them to solve amortization problems.
- 6. Translate statements into symbolic form and vice versa. Construct truth tables for propositions, including implications. Use truth tables to verify equivalencies.

# 3. Required Materials

(a) Texts

Finite Mathematics (custom Camosun Edition) by Goldstein

(b) Other

Sharp EL-531 calculator (or Sharp EL-510R). No other calculator may be used during tests/exams

#### 4. Course Content and Schedule

Schedule: See the pacing schedule on D2L

#### **Assignments:**

There will be a total of nine assignments to be submitted for marking. The due dates for the assignments are listed on the pacing schedule. Each assignment will be due to be submitted no later than the end of class on the due date. Because I will be posting the solutions immediately after class, I will not be able to accept late assignments.

Of the nine assignments, the lowest two assignment marks will be dropped when calculating your grade in the course.

**Tests:** There will be three tests for this course (January 29, March 4, March 25). Each of these tests will be written in class, and will have a duration of 90 minutes. You will not be permitted the use of a formula sheet on these tests. The coverage for these tests will be announced in class, and posted on D2L the week before the test.

**Final Exam**: A comprehensive, 3-hour final exam will take place during the final exam period of April 14-22. The specific date, time, and location will be announced on or about March 9. You must write the final exam at the scheduled time as per Camosun College's policy on final examinations. See camosun.ca/learn/calendar/current/procedures.html#academic

**Test Absences**: If you miss a test for a legitimate reason such as illness, accident or family affliction, you should notify me as soon as possible and provide supporting documentation. There will be no "make-up" tests. In the event of an excused absence for a test, the mark from the relevant portions of the final exam, will replace your test mark. If you miss a test and are not excused, then a mark of zero will be given for that test or quiz.

**Attendance and "Extra Credit":** In each lecture (excluding test days), I will be taking attendance. There are no attendance marks or participation marks for this course. If you miss more than half of a lecture, then you will be marked absent for that lecture.

For every six classes that you attend, you will receive a token that will be visible in the grade book on D2L. If a student attends every lecture, then they will receive the maximum of four tokens over the term.

A token may be exchanged for the ability to rewrite a test question that you did poorly on. To use a token:

- Make an appointment with me, and bring your test with you, so that you can show me which
  question you would like to try again.
- I will print out a fresh copy of the question, and you will try the question again. It will be identical
  to the question on the test; since you would have studied the test solutions, solving the question
  should not take long.
- I will mark your work, then make the appropriate adjustments to your test mark.

All unused tokens will expire on the day of the final exam. Using tokens to rewrite test questions is the only form of "extra credit" that I offer for this course.

# 5. Basis of Student Assessment (Weighting)

Term Tests: 36% (12% for each of the 3 term test)

Assignments: 14% (2% for each of the 7 assignments after the lowest 2 are dropped)

Final Exam: 50%

# 6. Grading System

X	Standard Grading System (GPA)
	Competency Based Grading System

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

#### A&S Math Lab (Ewing 224):

This drop-in centre is freely available for your use to work on math homework and to seek help from the instructional assistant. Hours are posted on the door or online at camosun.ca/services/help-centres/#MATH

#### Estimated out-of-class hours:

To be successful in this course, you should expect to spend about 8 hours per week studying and doing the suggested problems.

# 8. College Supports, Services and Policies



#### Immediate, Urgent, or Emergency Support

If you or someone you know requires immediate, urgent, or emergency support (e.g. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @ <a href="http://camosun.ca/about/mental-health/emergency.html">http://camosun.ca/about/mental-health/emergency.html</a> or <a href="http://camosun.ca/services/sexual-violence/get-support.html#urgent">http://camosun.ca/services/sexual-violence/get-support.html#urgent</a>

#### **College Services**

Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at <a href="http://camosun.ca/">http://camosun.ca/</a>

#### **College Policies**

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available on the College website at <a href="http://camosun.ca/about/policies/">http://camosun.ca/about/policies/</a>. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

#### A. GRADING SYSTEMS http://camosun.ca/about/policies/index.html

The following two grading systems are used at Camosun College:

#### 1. Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9

85-89	Α		8
80-84	A-		7
77-79	B+		6
73-76	В		5
70-72	B-		4
65-69	C+		3
60-64	С		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

# 2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
СОМ	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

# **B.** 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 <a href="http://camosun.ca/about/policies/index.html">http://camosun.ca/about/policies/index.html</a> for 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.