

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

MATH-109-003 Finite Mathematics Winter 2018

# **COURSE OUTLINE**

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

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) Instructor Dr. Garret Flowers
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(b) Office hours	Mon, Wed (2:30 – 3:30) ; Tues, Thurs (5:30 – 6:20)		
(c) Location	Ewing 250		
(d) Phone	250-370-3321	Alternative:	
(e) E-mail	flowersg@camosun.ca		
(f) Website	D2L (online.camosun.ca)		

### 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.
- 3. 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) At least one of the following:
  - Finite Mathematics (custom Camosun Edition) by Goldstein
  - *Math 109 Lecture Notes* by Garret Flowers (a coursepack available in the Camosun bookstore, or for free online)

Students may choose to use either of the above resources, or both if desired. In the past, most students have preferred using the lecture notes.

(b) Calculator: EL-531X or EL-531XG are the standard calculators required for all Camosun math courses. Other variations *may* be accepted, but only after gaining the approval of the instructor.

## 4. Basis of Student Assessment (Weighting)

7% - Quizzes 7% - Assignments 36% - Midterms (3 50% - Final Exam	midterms at 12% each)
Assignments:	There will be three assignments, each due before a midterm.
Quizzes:	There will be nearly weekly quizzes at the start of class for approximately 15 minutes. The quizzes are open-notes and may be completed in small groups.
Midterms:	There are three midterms. The dates are:
	Thursday, February 1 Thursday, March 8 Thursday, April 5

Final Exam: The final exam is 3 hours in length and occurs after courses have ended.

### 5. Grading System

#### Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	А		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

### 6. 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 @ <u>http://camosun.ca/about/mental-health/emergency.html</u> or <u>http://camosun.ca/services/sexual-violence/get-support.html#urgent</u>

#### **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 <u>http://camosun.ca/</u>

#### **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.

# **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	<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.