



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

MATH-109-D04
Finite Mathematics
WINTER 2021

COURSE OUTLINE

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

Ω Please note: This outline will not 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	Leah Howard
(b) Office hours	Mon 8:30-9:20; Wed 1:30-2:20; Thurs 1:30-2:20 on D2L
(c) Location	D2L
(d) Phone	please use email Alternative:
(e) E-mail	HowardL@camosun.ca
(f) Website	www.leahhoward.com

Free math help is also available at the MATH LAB. See the link on the course website.

Tips for Success:

- 1) Watch lecture videos regularly to stay on track
- 2) Videos will be less than 50 minutes long, so you will have extra time to drop into D2L sessions
- 3) Do suggested homework problems each time we finish a section

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.
2. 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

There is no textbook for the course. Suggested homework problems and answers will be provided for free (on D2L).

There are two recommended options for calculators. These can be purchased at the Camosun Bookstore or Walmart, Staples etc.
SHARP EL-531 or TI-BA II PLUS

4. Course Content and Schedule

Ch 3 Sets and Counting
Ch 4 Probability
Ch 5 Expected Value and Binomial Distribution
Ch 1 Equations and Inequalities
Ch 2 Linear Programming
Ch 6 Matrices
Ch 7 Markov Chains
Ch 8 Financial Math
Ch 9 Logic

5. Basis of Student Assessment

4 Assignments	worth a total of 25% of your final grade
3 Tests	worth a total of 45% of your final grade
Final Exam	worth 30% of your final grade

You will have 50 minutes to write each test. A thorough understanding of the course material will be required to complete the test during the time limit.

Tentative Dates

Assignments: Jan 27, Feb 24, Mar 24, Apr 14

Tests: Feb 3, Mar 3, Mar 31

The exam will be three hours long and will take place during the official exam period (April 19-27).

Academic Integrity

Academic dishonesty is NOT tolerated and the consequences can be severe.

Academic Integrity Guidelines for Assignments, Tests and Exam

You MAY use your own notes and any resources on the course website: notes, videos, formula sheet etc

You may NOT copy from other people (including classmates, friends/family, tutors, homework sites like Chegg)

Possible disciplinary actions include:

* You receive zero on the assignment or test

* An Academic Infraction Report is added to your academic record.

6. Grading System

Standard Grading System (GPA)

Competency Based Grading System

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

Free math help is also available at the MATH LAB. See the link on the course website.

Tips for Success:

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- 3) Do suggested homework problems each time we finish a section

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

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 <http://camosun.ca/>

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 <http://camosun.ca/about/policies/>. 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	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		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
COM	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 <http://camosun.ca/about/policies/index.html> 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.