



CAMOSUN COLLEGE
School of Access
Department of Mathematics and Statistics

Math 072-DS01
Advanced Mathematics 1
Fall, 2020

COURSE OUTLINE

The calendar description is available on the web @ <http://camosun.ca/learn/calendar/current/web/math.html>

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	Cathy Frost		
(b) Office hours	open		
(c) Location	email		
(d) Phone	N/A	Alternative:	
(e) E-mail	frost@camosun.bc.ca		
(f) Website	online.camosun.ca		

2. Intended Learning Outcomes

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

1. Demonstrate basic numeracy skills by performing mathematical operations on real numbers including absolute value and exponents, with and without scientific calculators.
2. Read and write mathematics at an Adult Basic Education Advanced Level.
3. Solve linear equations and equations involving absolute value. Use formulas and solve formulas for a given variable. Solve linear and compound inequalities and express answers in both set and interval notation.
4. Determine whether or not relations are functions. Evaluate functions. Determine the functions (quadratic, reciprocal and absolute value) using a table of values.
5. Graph linear equations using a variety of strategies. Determine equations of lines given two points or the slope and a point. Model simple real-life problems that require linear equations (for example, finding the size of a fish growing at a fixed rate, determining the cost of a job involving fixed and variable costs).
6. Solve systems of linear equations in two variables by graphing, substitution, and elimination.
7. Determine whether expressions are polynomials. Classify polynomials by degree and type. Add, subtract and multiply polynomials. Factor polynomials completely using a variety of strategies.
8. Use the laws of exponents to simplify expressions containing rational exponents. Convert expressions between radical and exponential form.
9. Solve applied problems including those involving geometry, mixture and money (simple interest, investment, % discount, buying/selling).

After completion of Math 072 and 073, students will meet the outcomes as identified in the Adult Basic Education Articulation Handbook found at http://www2.gov.bc.ca/assets/gov/education/post-secondary-education/adult-education/2016-17_abe_guide.pdf

3. Required Materials

a) Computer/Tablet/Phone and Internet Access Please contact me if you do not have a device

b) Textbook:

Choose the print textbook or the e-text (both come with the MLM access code). Go to

<https://www.camosuncollegebookstore.ca/> and select either:

- Intermediate Algebra W/**Mymathlab** Access LI 13Th Ed (print)
- or Intermediate Algebra Etext W/Integrated Review **Mymathlab** Access (e-text)

Register for **Mymathlab/MyLabMath (MLM)** for the e-text, videos, assignments and practice tests. Go to <https://www.pearsonmylabandmastering.com/northamerica/mymathlab/students/get-registered/index.html> to register using your access code and the Course ID frost82221. *You can get 14 days of free temporary access.*

c) Calculator: Sharp EL-531 scientific calculator or <https://www.calculator.net/scientific-calculator.html> (free online calculator)

4. Course Content and Schedule

Time	Monday	Tuesday	Wed	Thursday	Friday
5:30-7:50pm	Math 072/073-DS01 Collaborate 5:30-6:30 for 072 primarily 6:30-7:30 for 073 primarily		Math 072/073-DS01 Collaborate 5:30-6:30 for 072 primarily 6:30-7:30 for 073 primarily		

Math 072 covers Chapter R through Chapter 4 in the textbook:

- Unit 1: Ch R Review of Basic Algebra R.1 - R.7
- Unit 2:Ch 1 Solving Linear Equations and Inequalities 1.1 - 1.6 (omit 1.6e)
- Unit 3: Ch 2 Graphs, Functions, and Applications 2.1 - 2.6
- Unit 4:Ch 3 Systems of Equations 3.1 - 3.4a, 3.7ab
- Unit 5:Ch 4 Polynomials and Polynomial Functions 4.1 - 4.8

Since this is a self-paced course, there will not be a formal lecture. However, I encourage you to check in at the start of every class (5:30pm for 072) in D2L Collaborate at <http://online.camosun.ca> so I may tailor the class time to suit your needs. This may include a mini-lecture on a popular topic or individual questions. It may be helpful to set aside the class time and another regular time for studying. To complete the course in one term, you will need to spend at least 8-12 hr/week studying.

The suggested pacing schedule below will assist you in completing the course in one term, however, you may want to go at a faster pace to complete it earlier, or you may need more time and will need to re-register for another term to complete it. Test marks may be carried forward for up to one year. You can take up to 3 terms to complete a course.

If you wish to complete both Math 072 and Math 073 in one semester, contact your instructor for the suggested schedule.

Suggested Pacing Schedule to complete the course in one term:

Wk	Date	Monday	Tuesday	Wednesday	Thursday	Friday
1	Sept 7-11	<i>Labour Day Holiday</i>	Just in Time Review (JITR)	Just in Time Review (JITR) 5:30 Collaborate	Just in Time Review (JITR) Practice Test Book Test	Just in Time Review (JITR)
2	Sept 14-18	Just In Time Review (JITR) Test (no Calculator) 5:30 Collaborate	1.1 Solving Equations	1.1 Solving Equations 5:30 Collaborate	1.2 Formulas and Applications	1.2 Formulas and Applications
3	Sept 21-25	1.3 Applications and Problem Solving 5:30 Collaborate	1.3 Applications and Problem Solving	1.4 Sets, Inequalities, and Interval Notation 5:30 Collaborate	1.4 Sets, Inequalities, and Interval Notation	1.5 Intersections, Unions, and Compound Inequalities
4	Sep 28-Oct 2	1.5 Intersections, Unions, and Compound Inequalities 5:30 Collaborate	1.6(a-d) Absolute-Value Equations	1.6(a-d) Absolute-Value Equations 5:30 Collaborate	Chapter 1 Practice Test Book Test	Chapter 1 Review
5	Oct 5-9	Chapter 1 Test 5:30 Collaborate	2.1 Graphs of Equations	2.2 Functions and Graphs 5:30 Collaborate	2.2 Functions and Graphs	2.3 Finding Domain and Range
6	Oct 12-16	<i>Thanksgiving Holiday</i> No classes	2.3 Finding Domain and Range	2.4 Linear Functions: Graphs and Slope 5:30 Collaborate	2.4 Linear Functions: Graphs and Slope	2.5 More on Graphing Linear Equations
7	Oct 19-23	2.5 More on Graphing Linear Equations 5:30 Collaborate	2.6 Finding Equations of Lines: Applications	2.6 Finding Equations of Lines: Applications 5:30 Collaborate	Chapter 2 Practice Test Book Test	Chapter 2 Review
8	Oct 26-30	Chapter 2 Test 5:30 Collaborate	3.1 Systems of Equations in Two Variables (omit consistency & dependence)	3.2 Solving by Substitution 5:30 Collaborate	3.3 Solving by Elimination	3.3 Solving by Elimination
9	Nov 2-6	3.4a Solving Applied Problems 5:30 Collaborate	3.4a Solving Applied Problems	3.7ab Systems of Inequalities in 2 Variables 5:30 Collaborate	Chapter 3 Practice Test Book Test	Chapter 3 Review
10	Nov 9-13	Chapter 3 Test 5:30 Collaborate	4.1 Introduction to Polynomials	<i>Remembrance Day</i> No classes	4.1 Introduction to Polynomials	4.2 Multiplication of Polynomials
11	Nov 16-20	4.2 Multiplication of Polynomials 5:30 Collaborate	4.3 Introduction to Factoring	4.3 Introduction to Factoring 5:30 Collaborate	4.4 Factoring Trinomials: $x^2 + bx + c$	4.4 Factoring Trinomials: $x^2 + bx + c$
12	Nov 23-27	4.5 Factoring Trinomials: $ax^2 + bx + c$ 5:30 Collaborate	4.5 Factoring Trinomials: $ax^2 + bx + c$	4.6 Special Factoring 5:30 Collaborate	4.6 Special Factoring	4.7 Factoring: A General Strategy
13	Nov 30 - Dec 4	4.7 Factoring: A General Strategy 5:30 Collaborate	4.8 Applications of Polynomial Equations	4.8 Applications of Polynomial Equations 5:30 Collaborate	Chapter 4 Practice Test Book Test	Chapter 4 Review
14	Dec 7- Dec 11	Chapter 4 Test 5:30 Collaborate	Exam Review	Exam Review 5:30 Collaborate	Exam Practice Test Book Exam	Exam Review
15	Dec 14-17	Final Exam Part 1 (no Calculator)	Final Exam Part 2 (Calculators allowed)		Last Day to Write Tests/Exam	

- Tests can be written on Mon or Wed. evenings from 4:00-8:00pm and must be booked at least two business days ahead.

5. Basis of Student Assessment (Weighting)

- (a) **Homework Assignments (20%)** on [MLM](#)
There is an assignment for each chapter. You get three attempts on each question.
- (b) **Practice Tests (10%)** on [MLM](#)
Before each test, you will need to complete the practice test. You get 2 attempts.
- (c) **Chapter Tests – (40%)** on [MLM](#)
After completing all the homework, the practice test, and when you feel ready, book your test by sending me an email noting the day (Mon. or Wed) and time (between 4:00-8:00pm) when you can write it. The test will be loaded onto [MLM](#) within two business days. Show all your work on paper, clearly numbering each question, then enter the answers in [MML](#). Submit your work by scanning it as a single pdf file, then submit it using the Locker Tool in [D2L](#). You will not receive credit for the test unless satisfactory work is shown.
- There are five (equally-weighted) chapter tests. Re-tests are only provided if you score less than 65%. Only one re-test is allowed and the two scores will be averaged. You will need approximately 2 hours to complete each chapter test. No Calculator is allowed for the Just in Time Review test.
- (d) **Final Exam – 30%** on [MLM](#)
There is a cumulative final exam. It covers all of the material from Just in Time Review/Review to the end of Chapter 4. When you have completed all the tests and the exam review, and feel that you're ready, please let me know what day (Mon. or Wed) and time (between 4:00-8:00pm) you want to write it. There are no rewrites for the final exam. You will need approximately 3 hours to write the final exam. No calculator is allowed for part one of the final exam.

6. Grading System

(If any changes are made to this part, then the Approved Course description must also be changed and sent through the approval process.)

(Mark with "X" in box below to show appropriate approved grading system – see last page of this template.)

Standard Grading System (GPA)

Competency Based Grading System

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

Supplementary materials are on the websites <http://online.camosun.ca>

Publisher website "MyMathLab": <http://pearsonmylabandmastering.com>

Free tutoring : Please email <mailto:campbellc@camosun.bc.ca> to book a time with our tutors

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://www.camosun.bc.ca/policies/policies.php>

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://www.camosun.bc.ca/policies/E-1.5.pdf> 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.