CAMOSUN COLLEGE
School of Access
Department of Mathematics & Statistics

Math 072 S02
Advanced Mathematics 1
Spring 2016

COURSE OUTLINE

The calendar description is available on the web @ camosun.ca/learn/calendar/current

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	Crystal Lomas		
(b) Office hours	Tues. and Thurs. 12:30 pm-1:20 pm. Additional hours by appointment.		
(c) Location	E270		
(d) Phone	250-370-3428	**Alternative:**	
(e) E-mail	LomasC@camosun.bc.ca		
(f) Website (D2L)	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).

3. Required Materials

(a) **Required Textbook**: Intermediate Algebra, 12th edition, M. L. Bittinger. You may choose to purchase either the print textbook or a code for access to the digital textbook (which also allows access to the solution manual, extra practice questions, and video lessons). The book store sells bundles with various combinations of the text and/or solutions manual and/or digital code.

(b) **Calculator**: The only calculator allowed on tests and the final exam is the Sharp EL-531 scientific calculator. No calculator will be allowed on the Unit 1 test, the Unit 3 test, and part of the final exam.

4. Course Content and Schedule

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 - 3.4, 3.7ab
Unit 5:	Ch 4	Polynomials and Polynomial Functions	4.1 - 4.7

A suggested schedule for completing the course in one semester is available as a handout and on D2L. There is also a blank schedule that you can use to create your individual study plan. If you wish to complete both Math 072 and Math 073 in one semester, see D2L or your instructor for the suggested schedule.

The exercises to help you prepare for unit tests are available as a handout and on D2L.

Since this is a self-paced course, there will not be a lecture during class time. Instead, class time is a time for you to study at your own pace and ask any questions that have come up since the last time you were in class. You are encouraged to come to each class (it will help you stay on track with your studies), but you will also need to spend a considerable amount of time outside of class studying.

5. Basis of Student Assessment (Weighting)

(a) **Term Tests – 50%**

There are five (equally-weighted) unit tests in Math 072. When you feel you are prepared to take a unit test, please talk to your instructor to obtain a test permission slip. This gives you permission to write your test in the Math Help Centre (E342) within one week of the slip's issue date. You can write your tests any time the Math Help Centre is open (not just on class days!).

On each unit test: if you score at least 65%, you can move on to the next unit. If you do not score at least 65%, you must re-study and re-take the test until you get 65%.

You will need approximately 1.5 hours to complete each term test.

(b) **Final Exam – 50%**

There is a cumulative final exam for Math 072. It covers all of the material from Chapter R to Chapter 4 in the text. There is a non-calculator portion of the exam. After completing all of the unit tests, obtain a test permission slip from your instructor and write the final exam in the Math Help Centre. There are no rewrites for the final exam.

You will need approximately 3 hours to write the final exam.

6. Grading System

[X] Standard Grading System (GPA)

[ ] Competency Based Grading System

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, Student Services or the College web site at http://www.camosun.bc.ca

STUDENT CONDUCT POLICY

There is a Student Conduct Policy. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, Registration, and on the College web site in the Policy Section.
http://www.camosun.bc.ca/policies/policies.html

ACADEMIC INTEGRITY

The Department of Mathematics and Statistics has prepared a handout called *Student Guidelines for Academic Integrity* to help you interpret college policies involving student conduct, academic dishonesty, plagiarism, etc. It is your responsibility to become familiar with the contents of the document and the college policies it references.

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	*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.