



School of Access  
Community Learning Partnerships  
**MATH 072 S17**  
Advanced Mathematics 1  
**Course Outline – Fall 2012**



**Instructor:** Morgan Sargent **E-mail:** [sargentm@camosun.bc.ca](mailto:sargentm@camosun.bc.ca)  
**Class Hours:** Mo & Fr 10:00-11:50; We 1:00-2:50

**Phone #:** 250-544-2192  
**Office Hours:** Mo, Fr: 9-10

### Calendar Description

This course is the first half of Math 11 and provides the algebra skills required for statistics, criminal justice and some business programs. Topics include: linear equations and inequalities, rearranging formulas, linear equations in two variables, systems of linear equations, integer and rational exponents, polynomials and factoring.

**Prerequisite(s):** "C" in Principles of Math 10, or Foundations of Math & Pre-calculus 10, or Pre-calculus 11, or Foundations of Math 11, or MATH 053, or MATH 057; or "C-" in Principles of Math 11; or assessment.

<http://camosun.ca/learn/calendar/current/web/math.html>

### Exit Grade:

A grade of C+ (65%) or better in Math 072 is necessary to continue into Math 073 (Advanced Mathematics 2), Math 116 (Elementary Statistics) as well as certain programs such as Criminal Justice, Business Administration, Golf Management, and Hotel and Restaurant Management.

### Required Materials:

- Textbook: *Intermediate Algebra*, 10th edition, Marvin Bittinger. NOTE: Same textbook for 073.
- Scientific calculator: The Sharp EL 531W model will be the only calculator allowed for this course and most math courses at Camosun.
- NOTE: Calculators will not be allowed on Tests 1 or 3.

### Course Content and Schedule

#### Self-paced Instructions

The course is designed to be completed in one term. However, it can be completed sooner, depending on a number of factors including the students' beginning level of math skills, motivation, learning rate, and how much time they can actually study (average 15-20 hours per week to complete in 4 months).

If you do not understand something seek help right away. In addition to online, resources include your family and friends, your instructor, and /or the Math Tutor Center.

Contact your instructor to get permission to write the unit exam. These exams will be written face-to-face.

Your final grade is based on pre and post-tests, the unit exams, and the final exam.

**Grade Calculation:** Pre and Post-tests 10%

\*Five Unit Exams 40%

\*\*Final Exam 50% or 100%

\* Units 1 & 3 (chapters R & 2) are without calculators. As this is a mastery-based course, the goal for each test is 65% or better. If you receive between 60 & 70%, you have the option of rewriting once. If you scored less than 60% then you will need to rewrite the test before you continue. Note: Tests can only be rewritten once for a total of two times. The lowest test mark will be dropped when calculating the test average.

\*\* If your term average is at least 50% and all your assignments are complete and if your final exam mark is higher than your term average, then your final course grade will be based 100% on your final exam mark.

**Access Math Lab and Testing Centres:**

The Lansdowne Access Math Labs are located in Ewing 342: This drop-in centre is freely available for your use to work on math homework and to seek help from the tutor on staff.

Tests can be written in Ewing 342 or at Interurban in CBA109. Contact your instructor for permission to write with your preferred location. Note: Advanced Math help is NOT available at Interurban.

Check the college website (<http://camosun.ca/learn/programs/math/labs.html>) for details and hours.

Off-campus students will make arrangements to write exams in a local learning centre as well as provide for an invigilator.

**Important Dates:**

See the college website at <http://camosun.ca/learn/calendar/current/pdf/events.pdf> for important dates including the last day to withdraw to avoid an F on your transcript.

## Grading System

Percentage	Grade	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
<50%	F	0
In Progress	IP	N/A

For information on Camosun College's grading policy, see the webpage <http://www.camosun.bc.ca/policies/Education-Academic/E-1-Programming-&-Instruction/E-1.5.pdf>

## Academic Progress

There is an Academic Progress Policy designed to enhance a learner's likelihood of success. Students should 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://camosun.bc.ca/policies/Education-Academic/E-1-Programming-&-Instruction/E-1.1.pdf>

Text	MATH 072 course content	Required or Optional
<b>Unit R Review of Basic Algebra</b>		
	<b>Unit 0 (Review) Pre-test</b>	<b>Required</b>
R.1	The set of real numbers	Optional
R.2	Operations with real numbers	Optional
R.3	Exponential notation and order of operations	Optional
R.4	Introduction to algebraic expressions	Optional
R.5	Equivalent algebraic expressions	Optional
R.6	Simplifying algebraic expressions	Optional
R.7	Properties of exponents and scientific notation	Optional
	Summary and review, Chapter Test	Optional
	<b>Unit 0 (Review) Post-test</b>	<b>Required</b>
	<b>Unit 0 (Review) Exam</b>	<b>Required</b>
<b>Unit 1 - Solving Linear Equations and Inequalities</b>		
	<b>Unit 1 Pre-test</b>	<b>Required</b>
1.1	Solving equations	Optional
1.2	Formulas and applications	Optional
1.3	Applications and problem solving	Optional
1.4	Sets, inequalities, and interval notation	Optional
1.5	Intersections, unions, and compound inequalities	Optional
1.6	Absolute-value equations	Optional
	Summary and review (S/R), Chapter Test (CT)	Optional
	<b>Unit 1 Post-test</b>	<b>Required</b>
	<b>Unit 1 Exam</b>	<b>Required</b>
<b>Unit 2 – Graphs, Functions, and Applications</b>		
	<b>Unit 2 Pre-test</b>	<b>Required</b>
2.1	Graphs of equations	Optional
2.2	Functions and graphs	Optional
2.3	Finding domain and range	Optional
2.4	Linear functions: graphs and slope	Optional
2.5	More on graphing linear equations	Optional
2.6	Finding equations of lines; applications	Optional
	Summary and review, Chapter Test	Optional
	<b>Unit 2 Post-test</b>	<b>Required</b>
	<b>Unit 2 final test</b>	<b>Required</b>

<b>Unit 3 – Systems of Equations</b>		
	<b>Unit 3 Pre-test</b>	<b>Required</b>
<b>3.1</b>	Systems of equations in two variables	Optional
<b>3.2</b>	Solving by substitution	Optional
<b>3.3</b>	Solving by elimination	Optional
<b>3.4a</b>	Solving applied problems: two equations	Optional
<b>3.7a-b</b>	Inequalities in two variables	Optional
	Summary and review, Chapter Test	Optional
	<b>Unit 3 Post-test</b>	<b>Required</b>
	<b>Unit 3 Exam</b>	<b>Required</b>
<b>Unit 4 - Polynomials and Polynomial Functions</b>		
	<b>Unit 4 Pre-test</b>	<b>Required</b>
<b>4.1</b>	Introduction to polynomials and polynomial functions	Optional
<b>4.2</b>	Multiplication of polynomials	Optional
<b>4.3</b>	Introduction to factoring	Optional
<b>4.4</b>	Factoring trinomials: $x^2 + bx + c$	Optional
<b>4.5</b>	Factoring trinomials: $ax^2 + bx + c$ , $a \neq 1$	Optional
<b>4.6</b>	Special factoring	Optional
<b>4.7</b>	Factoring: a general strategy	Optional
	Summary and review, Chapter Test	Optional
	<b>Unit 4 Post-test</b>	<b>Required</b>
	<b>Unit 4 Exam</b>	<b>Required</b>
<b>Unit 5 - Rational Exponents</b>		
	<b>Unit 5 Pre-test</b>	<b>Required</b>
<b>6.1</b>	Radical expressions and functions	Optional
<b>6.2</b>	Multiplication of polynomials	Optional
	<b>Unit 5 Post-test</b>	<b>Required</b>
	<b>Unit 5 will be tested on the final exam</b>	<b>None</b>
	<b>MATH 072 review</b>	
	<b>MATH 072 Final Exam</b>	<b>Required</b>

## **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, Registrar's Office or the College web site at:

<http://www.camosun.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, or the College web site at:

<http://camosun.ca/about/policies/education-academic/e-2-student-services-&-support/e-2.5.pdf>

### **STUDENT GRADING POLICY**

A new student grading policy is in effect for students in the School of Access. This information is available in the College Calendar, Registrar's Office or the College web site at:

<http://camosun.ca/about/policies/education-academic/e-1-programming-&-instruction/e-1.5.pdf>

### **ACADEMIC PROGRESS POLICY**

There is an Academic Progress Policy designed to enhance a learner's likelihood of success. Students should 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 or the College web site at:

<http://camosun.ca/about/policies/education-academic/e-1-programming-&-instruction/e-1.1.pdf>