



School of Access
Community Learning Partnerships
MATH 053 S16
Intermediate Mathematics 2



Course Outline – Winter 2016

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Class Hours: Tu/Th 9:00-11:50	Office Hours: By Arrangement	

Calendar Description

This course covers the second part of ABE Intermediate Math, and provides the introductory algebra and problem-solving skills required for further study in advanced-level algebra, math for technology, and any course or program that requires Math 10. Topics include: real numbers, algebraic expressions, equations, inequalities, graphing, and polynomials.

Prerequisite(s): MATH 052, or assessment.

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

Required Materials

- (a) textbook: *Developmental Mathematics*, 8th edition, Marvin Bittinger/Judith Beecher
- (b) scientific calculator (Sharp EL-531X or EL-531W for next level MATH 072 or 135)

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.

Grade Calculation¹: 5 Unit Exams worth 75% and a Final Exam worth 25%

¹ As this is a mastery-based course, the goal for each test is 75% or better. If you scored less than 75% then you will need to rewrite the test before you continue. Note: Tests can only be rewritten once for a total of two times and all test scores are averaged to calculate a final mark



Intended Learning Outcomes

(complete ABE Intermediate Mathematics learning outcomes at ABE Articulation Handbook website <http://www.aved.gov.bc.ca/abe/docs/handbook.pdf>)

At the end of the course, students will be able to:

1. use mathematics at an ABE Intermediate level with competence
2. demonstrate knowledge and skills in using the language, principles, and operations of introductory algebra
3. apply a variety of strategies in solving math-related problems
4. apply knowledge and skills in introductory algebra to solve problems
5. use knowledge of introductory algebra as a basis for further study in Advanced-level algebra, math for technology, and other courses and programs

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



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MATH 053 course content

Unit R: Arithmetic Review (no calculator)		8.4	Formulas
R.1	Place value	8.5	Applications of percent
R.2	Comparing numbers	8.6	Applications and problem solving
R.3	Rounding numbers	8.7	Solving inequalities
R.4	Adding and subtracting whole numbers and decimals	8.8	Applications and problem solving with inequalities
R.5	Multiplying whole numbers and decimals	Summary & Review and Chapter Test	
R.6	Dividing whole numbers and decimals	Unit 2 final test	
R.7	Order of operations	Unit 3: Graphs of Linear Equations	
R.8	Operations with fractions	9.1	Graphs and applications of linear equations
R.9	Equivalent fractions	9.2	More with graphing and intercepts
R.10	Adding and subtracting fractions	9.3	Slope and applications
R.11	Multiplying fractions	9.4	Equations of lines
R.12	Dividing fractions	9.5	Graphing using the slope and y-intercept
R.13	Converting fractions and decimals	Summary & Review and Chapter Test	
R.14	Estimation	Unit 3 final test	
Unit R final test (no calculator)		Unit 4: Polynomials: Operations and Factoring	
Unit 1: Real Numbers and Algebraic Expressions		10.1*	Integers as exponents
7.1	Introduction to algebra	10.2*	Exponents and scientific notation
7.2	The real numbers		* after 10.2, complete supplementary exercises on exponents #1–25
7.3	Addition of real numbers	10.3	Introduction to polynomials
7.4	Subtraction of real numbers	10.4	Addition and subtraction of polynomials
7.5	Multiplication of real numbers	10.5	Multiplication of polynomials
7.6	Division of real numbers	10.6	Special products
7.7	Properties of real numbers	10.7	Operations with polynomials in several variables
7.8	Simplifying expressions; order of operations	10.8a	Division of polynomials by a monomial
Summary & Review and Chapter Test		11.1ab	Introduction to common factoring
Unit 1 final test		11.2	Factoring trinomials of the type $x^2 + bx + c$
Unit 2: Solving Equations and Inequalities		11.5cd	Factoring differences of squares
8.1	Solving equations: the addition principle	Summary & Review and Chapter Test	
8.2	Solving equations: the multiplication principle	Unit 4 final test	
8.3	Using the principles together	MATH 053 review	
		MATH 053 final exam	



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-and-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-and-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-and-instruction/e-1.1.pdf>