School of Access
Community Learning Partnerships

MATH 053 S18

Intermediate Mathematics 2

Course Outline – Winter 2015

Instructor: Morgan Sargent **E-mail:** sargentm@camosun.ca **Phone #:** 250-386-1043 ext. 313
Class Hours: Tu & Th 9:30-12:20 **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*, 7th/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 Calculation[1]: 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

MATH 053 course content

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