

# School of Access Community Learning Partnerships MATH 053 S17 Intermediate Mathematics 2 Course Outline – Fall 2011



Instructor: Morgan Sargent E-mail: <a href="mailto:sargentm@camosun.bc.ca">sargentm@camosun.bc.ca</a> Phone #: 250-544-2192 Class Hours: Mon. Wed. Fri. 10am to Noon Office Hours: Monday to Friday 9:30am to 10am

## **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 edition, Marvin Bittinger & Judith Beecher
- (b) Module: *Trigonometry* (ABE Intermediate Mathematics module 14), British Columbia
- (c) Scientific calculator (Students going on to MATH 072 should purchase a Sharp EL531W

## 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<sup>1</sup>: 5 Unit Exams worth 75% and a Final Exam worth 25%

<sup>&</sup>lt;sup>1</sup> 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

**Grading System** 

| Percentage  | Grade | Grade Point<br>Equivalency |
|-------------|-------|----------------------------|
| 90-100%     | A+    | 9                          |
| 85-89%      | А     | 8                          |
| 80-84%      | A-    | 7                          |
| 77-79%      | B+    | 6                          |
| 73-76%      | В     | 5                          |
| 70-72%      | B-    | 4                          |
| 65-69%      | C+    | 3                          |
| 60-64%      | С     | 2                          |
| 50-59%      | D     | 1                          |
| <50%        | F     | 0                          |
| In Progress | IP    | N/A                        |

For information on Camosun College's grading policy, see the webpage <a href="http://camosun.ca/about/policies/education-academic/e-1-programming-&-instruction/e-1.5.pdf">http://camosun.ca/about/policies/education-academic/e-1-programming-&-instruction/e-1.5.pdf</a>

# **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.ca/about/policies/education-academic/e-1-programming-&-instruction/e-1.1.pdf

| Text  | MATH 053 course content   | Required or   |  |
|---|---|---------------|--|
|   | Unit P – Arithmetic Peview (no calcula                              | Optional tor) |  |
|   | Unit R – Arithmetic Review (no calculator) Unit R Pre-test Required |               |  |
| R.2   | Fraction Notation   | Optional      |  |
| R.3   | Decimal Notation  | Optional      |  |
| 13.5  | Unit R Post-test  | Required      |  |
|   | Unit R Exam (no calculator)   | Required      |  |
| Unit 1 Real Numbers and Algebraic Expressions (20 days) |   |               |  |
|   | Unit 1 Pre-test   | Required      |  |
| 7.1   | Introduction to algebra   | Optional      |  |
| 7.2   | The real numbers  | Optional      |  |
| 7.3   | Addition of real numbers  | Optional      |  |
| 7.4   | Subtraction of real numbers   | Optional      |  |
| 7.5   | Multiplication of real numbers                                      | Optional      |  |
| 7.6   | Division of real numbers  | Optional      |  |
| 7.7   | Properties of real numbers  | Optional      |  |
| 7.8   | Simplifying expressions; order of operations                        | Optional      |  |
|   | Summary and review  | Optional      |  |
|   | Unit 1 Post-test  | Required      |  |
|   | Unit 1 Exam   | Required      |  |
| Unit 2 Solving Equations and Inequalities (30 days)     |   |               |  |
|   | Unit 2 Pre-test   | Required      |  |
| 8.1   | Solving equations: the addition principle                           | Optional      |  |
| 8.2   | Solving equations: the multiplication principle                     | Optional      |  |
| 8.3   | Using the principles together                                       | Optional      |  |
| 8.4   | Formulas  | Optional      |  |
| 8.5   | Applications of percent   | Optional      |  |
| 8.6   | Applications and problem solving                                    | Optional      |  |
| 8.7   | Solving inequalities  | Optional      |  |
| 8.8   | Applications and problem solving with inequalities                  | Optional      |  |
|   | Summary and review  | Optional      |  |
|   | Unit 2 Post-test  | Optional      |  |
|   | Unit 2 Exam   | Required      |  |
|   | Unit 3 Graphs of Linear Equations (22 d                             | <b>,</b>      |  |
| 0.4   | Unit 3 Pre-test   | Required      |  |
| 9.1   | Graphs and applications   | Optional      |  |
| 9.2   | Graphing linear equations   | Optional      |  |
| 9.3   | More with graphing and intercepts                                   | Optional      |  |
| 9.4   | Slope and applications  | Optional      |  |
|   | Summary and review  | Optional      |  |
|   | Unit 3 Post-test  | Required      |  |
|   | Unit 3 Exam   | Required      |  |

| Unit 4 Polynomials: Operations and Factoring (28 days) |  |          |  |
|--|--|----------|--|
|  | Unit 4 Pre-test  | Required |  |
| 10.1   | Integers as exponents                                      | Optional |  |
| 10.2   | Exponents and scientific notation *** after 10.2, complete | Optional |  |
| *  | supplementary exercises on exponents (#1-25)***            |          |  |
| 10.3   | Introduction to polynomials                                | Optional |  |
| 10.4   | Addition and subtraction of polynomials                    | Optional |  |
| 10.5   | Multiplication of polynomials                              | Optional |  |
| 10.6   | Special products   | Optional |  |
| 10.7   | Operations with polynomials in several variables           | Optional |  |
| 10.8   | Division of polynomials                                    | Optional |  |
| 11.1   | Introduction to factoring                                  | Optional |  |
| 11.2   | Factoring trinomials of the type x2 bx c                   | Optional |  |
|  | Summary and review   | Optional |  |
|  | Chapter test   | Optional |  |
|  | Unit 4 Post-test   | Required |  |
|  | Unit 4 Exam  | Required |  |
|  | MATH 053 review  | Optional |  |
|  | MATH 053 final exam day 105                                | Required |  |

# 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

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