

School of Access Community Learning Partnerships MATH 034 S16 Fundamental Mathematics 7 Course Outline – Fall 2012



Instructor: Morgan Sargent E-mail: <u>sargentm@camosun.bc.ca</u> Class Hours: Tu & Th 9:00-11:50

Ph.#: 250- 384-3211 ext.2308 **Office Hours**: Tu: 12-1

Calendar Description

This course provides the basic computational and problem solving skills required for many aspects of daily life, and for further study in trades math and in intermediate-level algebra, geometry, and trigonometry. Topics include: whole numbers, fractions, decimals, proportion, percent, graphs, statistics, measurement, and geometry.

Prerequisite(s): MATH 033 or Assessment.

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

Required Materials

- (a) Textbook: *Developmental Mathematics*, 7th edition, Marvin Bittinger & Judith Beecher
- (b) 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! Please arrange a date and time with your instructor to write unit exams. These exams will be written face-to-face.

Grade Calculation¹: Six Unit Exams: 100%

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.

Grading System

| Percentage | Grade | Grade Point 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 http://camosun.ca/about/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.ca/about/policies/education-academic/e-1-programming-&-instruction/e-1.1.pdf

| Text | MATH 034 course content ² | Required or Optional |
|------|---|-------------------------|
| | Unit 1 Whole Numbers (for 4-month completion: 15 | days) |
| | Unit 1 Pre-test | Required |
| 1.1 | Standard notation; order | Optional |
| 1.2 | Addition and subtraction | Optional |
| 1.3 | Multiplication and division; rounding and estimating | Optional |
| 1.4 | Solving equations | Optional |
| 1.5 | Applications and problem solving | Optional |
| 1.6 | Exponential notation and order of operations | Optional |
| 1.7 | Factorizations | Optional |
| 1.8 | Divisibility | Optional |
| 1.9 | Least common multiples | Optional |
| | Summary and review | Optional |
| | Chapter test | Optional |
| | Unit 1 Post-test | Required |
| | Unit 1 Exam (no calculator) | Required |
| | Unit 2 Fraction Notation (20 days) | · - |
| | Unit 2 Pre-test | Required |
| 2.1 | Fraction notation and simplifying | Optional |
| 2.2 | Multiplication and division | Optional |
| 2.3 | Addition and subtraction; order | Optional |
| 2.4 | Mixed numerals | Optional |
| 2.5 | Applications and problem solving | Optional |
| 2.6 | Order of operations; estimation | Optional |
| | Summary and review | Optional |
| | Chapter test | Optional |
| | Unit 2 Post-test | Required |
| | Unit 2 Exam | Required |
| | Unit 3 Decimal Notation (15 days) | |
| | Unit 3 Pre-test | Required |
| 3.1 | Decimal notation, order, and rounding | Optional |
| 3.2 | Addition and subtraction | Optional |
| 3.3 | Multiplication | Optional |
| 3.4 | Division | Optional |
| 3.5 | Converting from fraction notation to decimal notation | Optional |
| 3.6 | Estimating | Optional |
| 3.7 | Applications and problem solving | Optional |
| | Summary and review | Optional |
| | Chapter test | Optional |
| | Unit 3 Post-test | Required |
| | Unit 3 Exam | Required |

² Before starting unit 1, students must pass a competency test to demonstrate that they can add, subtract, multiply, and divide whole numbers, fractions, and decimals *without the use of a calculator*.

| | Unit 4 Percent Notation (for 4-month completion: 20 da | ays) |
|------|--|----------|
| | Unit 4 Pre-test | Required |
| 4.1 | Ratio and proportion | Optional |
| 4.2 | Percent notation | Optional |
| 4.3 | Percent and fraction notation | Optional |
| 4.4 | Solving percent problems using percent equations | Optional |
| 4.5 | Solving percent problems using proportions | Optional |
| 4.6 | Applications of percent | Optional |
| 4.7 | Sales tax, commission, discount, and interest | Optional |
| 4.8 | Interest rates on credit cards and loans | Optional |
| | Summary and review | Optional |
| | Chapter test | Optional |
| | Unit 4 Post-test | Required |
| | Unit 4 Exam | Required |
| | Unit 5 Data, Graphs, and Statistics (15 days) | |
| | Unit 5 Pre-test | Required |
| 5.1 | Averages, medians, and modes | Optional |
| 5.2 | Tables and pictographs | Optional |
| 5.3 | Bar graphs and line graphs | Optional |
| 5.4 | Circle graphs | Optional |
| | Summary and review | Optional |
| | Chapter test | Optional |
| | Unit 5 Post-test | Optional |
| | Unit 5 Exam | Required |
| | Unit 6 Measurement and Geometry ³ (15 days) | |
| | Unit 6 Pre-test | Required |
| A* | Linear measures: American and metric units (*Appendixes) | Optional |
| B* | Weight and mass; medical applications | Optional |
| C* | Capacity; medical applications | Optional |
| D* | Time and temperature | Optional |
| 6.2 | Perimeter | Optional |
| 6.3 | Area | Optional |
| 6.4 | Circles | Optional |
| 6.5a | Volume and surface area | Optional |
| | Summary and review | Optional |
| | Unit 6 Post-test | Required |
| | Unit 6 Exam | Required |

 $[\]frac{1}{3}$ Unit 6 includes the Appendices A-D at the back of the text in addition to parts of chapter 6.

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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