



CAMOSUN COLLEGE
School of Access
Academic and Career Foundations Department

MATH 034 Fundamental Mathematics
S02,S03, S04
Fall 2013, Sept 2 – December 13, 2013

COURSE OUTLINE

The Approved Course Description is available on the College website
<http://www.camosun.bc.ca/learn/calendar/index.html>

Ω Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records.

1. Instructor Information

My Schedule **Sept-Dec, 2013**

| Nicolas Mai Ph: 370 – 3848 | | | | | |
|---|--|------------------------|--|------------------------|--------------------------------------|
| Office: Interurban CBA 149 | | | | | |
| Time | Monday | Tuesday | Wednesday | Thursday | Friday |
| 8:30-11:20 | Math S02 CBA 117 | Math S03 CBA 117 | Math S02 CBA 117 | Math S03 CBA 117 | Office CBA 149 |
| 11:30-12:20 | Help Centre CBA 109 | Lunch | Help Centre CBA 109 | Lunch | Office CBA 149 Lunch |
| 12:30-3:20 | Lunch 12:30-1:30 Office CBA 149 | Math S04 CBA 117 | Lunch 12:30-1:30 Office CBA 149 | Math S04 CBA 117 | Staff Meeting And Workshops |
| 3:30-4:30 | Office CBA 149 | Office CBA 149 | Office CBA 149 | Office CBA 149 | |
| <u>e-mail: mai@camosun.bc.ca</u> | | | | | |

OFFICE HOURS BY APPOINTMENT

2. Intended Learning Outcomes

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

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

1. use mathematics at an ABE Fundamental level with competence
2. demonstrate knowledge and skills in using the principles and operations of basic arithmetic, measurement, and data analysis
3. apply a variety of strategies in solving math-related problems
4. apply knowledge and skills in basic arithmetic, data analysis, measurement, and geometry to solve problems related to employment, consumerism, personal finance, and other aspects of daily life
5. use knowledge and skills in arithmetic, data analysis, measurement, and geometry as a basis for further study in algebra, geometry, trades math, and other programs

3. Required Materials

- (a) textbook: *Developmental Mathematics*, 6th or 7th edition, Marvin Bittinger & Judith Beecher
- (b) basic calculator (scientific calculator recommended; Sharp EL531W for MATH 072)

Supplementary Materials

- (c) *Student's Solutions Manual*, Judith Penna
(for sale in the bookstore; available for reference in the classroom)
- (d) *Instructor's Solutions Manual*, Judith Penna (for reference in the classroom)
- (e) video CDs (cover each section of the text, for viewing at the college or at home)
- (f) website www.mymathlab.com (online text, tutorials, videos, and testing)

4. Course Content and Schedule

Self-paced Instructions

The course completion time will vary for each student, depending on a number of factors, including your current level of math skills, motivation, learning rate, and how much time you have to study math, either at the college or at home. Students generally need to spend 5–15 hours of study time per week to complete each math course within 4 months.

- (a) for each section of the 034 text listed in the table below, read the explanations, study the Examples, do the Margin Exercises, and then work through and check all or at least some of the more difficult odd-numbered problems in the Exercise Set
- (b) note that unit 6 is covered by parts of chapter 6 and Appendixes A–D at the back of the text
- (c) to prepare for the final test for each unit, do the Summary and Review exercises and write the Chapter Test at the end of the chapter, and correct all of your errors
- (d) review your final test results with the instructor, and proceed to the next unit if you score 75% or better, or rewrite the final test if you score less than 75% (all test scores count)
- (e) calculators may not be used on the final tests for units 1 – 3

| 6th ed'n | 7th ed'n | MATH 034 course content | video CD |
|----------|----------|---|----------|
| | | Unit 1 – Whole Numbers (for 4-month completion: 15 days) | |
| 1.1 | 1.1 | Standard notation; order | 1.1 |
| 1.2 | 1.2 | Addition and subtraction | 1.2 |
| 1.3 | 1.3 | Multiplication and division; rounding and estimating | 1.3 |
| 1.4 | 1.4 | Solving equations | 1.4 |
| 1.5 | 1.5 | Applications and problem solving | 1.5 |
| 1.6 | 1.6 | Exponential notation and order of operations | 1.6 |
| 1.7 | 1.7 | Factorizations | 1.7 |
| 1.8 | 1.8 | Divisibility | 1.8 |
| 1.9 | 1.9 | Least common multiples | 1.9 |

| | | | | |
|-----|-----|-----------------------------------|-----------|-----|
| | | Summary and review | | |
| | | Chapter test | | |
| | | Unit 1 final test (no calculator) | | |
| | | | | |
| | | Unit 2 – Fraction Notation | (20 days) | |
| 2.1 | 2.1 | Fraction notation and simplifying | | 2.1 |
| 2.2 | 2.2 | Multiplication and division | | 2.2 |
| 2.3 | 2.3 | Addition and subtraction; order | | 2.3 |
| 2.4 | 2.4 | Mixed numerals | | 2.4 |
| 2.5 | 2.5 | Applications and problem solving | | 2.5 |
| 2.6 | 2.6 | Order of operations; estimation | | 2.6 |
| | | Summary and review | | |
| | | Chapter test | | |
| | | Unit 2 final test (no calculator) | | |

| 6th ed'n | 7th ed'n | MATH 034 course content | video CD |
|----------|----------|--|----------|
| | | Unit 3 – Decimal Notation (15 days) | |
| 3.1 | 3.1 | Decimal notation, order, and rounding | 3.1 |
| 3.2 | 3.2 | Addition and subtraction | 3.2 |
| 3.3 | 3.3 | Multiplication | 3.3 |
| 3.4 | 3.4 | Division | 3.4 |
| 3.5 | 3.5 | Converting from fraction notation to decimal notation | 3.5 |
| 3.6 | 3.6 | Estimating | 3.6 |
| 3.7 | 3.7 | Applications and problem solving | 3.7 |
| | | Summary and review | |
| | | Chapter test | |
| | | Unit 3 final test (no calculator) | |
| | | Unit 4 – Percent Notation (20 days) | |
| 4.1 | 4.1 | Ratio and proportion | 4.1 |
| 4.2 | 4.2 | Percent notation | 4.2 |
| 4.3 | 4.3 | Percent and fraction notation | 4.3 |
| 4.4 | 4.4 | Solving percent problems using percent equations | 4.4 |
| 4.5 | 4.5 | Solving percent problems using proportions | 4.5 |
| 4.6 | 4.6 | Applications of percent | 4.6 |
| 4.7 | 4.7 | Sales tax, commission, discount, and interest | 4.7 |
| 4.8 | 4.8 | Interest rates on credit cards and loans | 4.8 |
| | | Summary and review | |
| | | Chapter test | |
| | | Unit 4 final test | |
| | | Unit 5 – Data, Graphs, and Statistics (15 days) | |
| 5.1 | 5.1 | Averages, medians, and modes | 5.1 |
| 5.2 | 5.2 | Tables and pictographs | 5.2 |
| 5.3 | 5.3 | Bar graphs and line graphs | 5.3 |
| 5.4 | 5.4 | Circle graphs | 5.4 |
| | | Summary and review | |
| | | Chapter test | |
| | | Unit 5 final test | |
| | | Unit 6 – Measurement and Geometry (15 days) | |
| A* | A* | Linear measures: American and metric units (*Appendixes) | |
| B* | B* | Weight and mass; medical applications | |
| C* | C* | Capacity; medical applications | |
| D* | D* | Time and temperature | |
| 6.2 | 6.2 | Perimeter | 6.2 |
| 6.3 | 6.3 | Area | 6.3 |
| 6.4 | 6.4 | Circles | 6.4 |
| 6.5a | 6.5a | Volume and surface area | 6.5a |
| | | Summary and review | |
| | | Unit 6 final test | |
| | | day 100 | |

5. Basis of Student Assessment (Weighting)

Tests 100% of the course grade is based on the average of **all** unit final test scores (including both passing and failing test scores)

Note:

1. Effective September 2005, returning self-paced MATH 034 students must start at the beginning of the course (no credit will be given for partial completion of ABMA 040 before September 2004).
2. Students with a record of poor attendance OR poor progress may be restricted from re-registering in Academic and Career Foundations Department courses.

6. Grading System

| | | | | | |
|----|---------|----|--------|----|-------------|
| A+ | 90–100% | B+ | 77–79% | C+ | 65–69% |
| A | 85–89% | B | 73–76% | C | 60–64% |
| A– | 80–84% | B– | 70–72% | IP | in progress |

7. 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, Registration, or on the College website <http://www.camosun.bc.ca/learning-skills/index.html>

ACADEMIC CONDUCT POLICY

It is the student's responsibility to become familiar with the content of the Academic Conduct Policy. The policy is available in each School Administration Office, Registration, and on the College website <http://www.camosun.bc.ca/policies/Education-Academic/E-2-Student-Services-&-Support/E-2.5.pdf>

ACADEMIC PROGRESS POLICY

The 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 website <http://camosun.bc.ca/policies/Education-Academic/E-1-Programming-&-Instruction/E-1.1.pdf>