CAMOSUN COLLEGE
School of Access
Academic and Career Foundations Department

MATH 034 Fundamental Mathematics 7
Spring 2014

COURSE OUTLINE

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

1. Instructor Information

Instructor: Alison Bowe Voicemail: 250.370.4911 Text only: 250.881.0264
Office: CBA 150 e-mail: bowe@camosun.bc.ca

July - August 2014 Schedule

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:30-9:30		S01 CBA 117		S01 CBA 117	
9:30-10:30	Lab Hours CBA 109		Office Hours CBA 150		Lab Hours CBA 109
10:30-11:30	S02 CBA 117		S02 CBA 117		S02 CBA 117
11:30-12:30		Lunch		Lunch	
12:30-1:30	Lunch	S03 CBA 117	Lunch	S03 CBA 117	Lunch
1:30-2:30	Office Hours CBA 150		Office Hours CBA 150		Office Hours CBA 150
2:30-3:30					
3:30-4:30		Office Hours CBA 150		Office Hours CBA 150	

2. Intended Learning Outcomes

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*, 8th edition, Marvin Bittinger/Judith Beecher
(b) basic calculator (scientific calculator recommended; Sharp EL-531X or EL-531W for MATH 072/135)

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) website *www.mymathlab.com* (online text, tutorials, videos, and testing)

4. Course Content and Schedule

Classes run from July 2 – August 19, 2014.

The College will be closed on Monday, August 4, for BC Day.

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 (do not hesitate to ask your instructor whenever you need help)
(b) 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
(c) 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)
(d) calculators may not be used on the final tests for units 1 – 3
(e) note that unit 6 is covered by parts of chapter 6 and Appendixes A–D at the back of the text

8th ed'n	7th ed'n	MATH 034 course content
		Unit 1 – Whole Numbers (15 days)
1.1	1.1	Standard notation; order
1.2	1.2	Addition and subtraction
1.3	1.3	Multiplication and division; rounding and estimating
1.4	1.4	Solving equations
1.5	1.5	Applications and problem solving
1.6 abc	1.6 abc	Exponential notation and order of operations
1.7	1.7	Factorizations
1.8	1.8	Divisibility
1.9	1.9	Least common multiples
		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
2.2	2.2	Multiplication and division
2.3	2.3	Addition and subtraction; order
2.4	2.4	Mixed numerals
2.5	2.5	Applications and problem solving
2.6	2.6	Order of operations; estimation
		Summary and review
		Chapter test
		Unit 2 final test (no calculator)
		Unit 3 – Decimal Notation (15 days)
3.1	3.1	Decimal notation, order, and rounding
3.2	3.2	Addition and subtraction
3.3	3.3	Multiplication
3.4	3.4	Division
3.5	3.5	Converting from fraction notation to decimal notation
3.6	3.6	Estimating
3.7	3.7	Applications and problem solving
		Summary and review
		Chapter test
		Unit 3 final test (no calculator)

8th ed'n	7th ed'n	MATH 034 course content
		Unit 4 – Percent Notation (20 days)
4.1	4.1	Ratio and proportion
4.2	4.2	Percent notation
4.3	4.3	Percent and fraction notation
4.4	4.4	Solving percent problems using percent equations
4.5	4.5	Solving percent problems using proportions
4.6	4.6	Applications of percent
4.7	4.7 abc	Sales tax, commission, and discount
		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
5.2	5.2	Tables and pictographs
5.3	5.3	Bar graphs and line graphs
5.4	5.4	Circle graphs
		Summary and review
		Chapter test
		Unit 5 final test
		Unit 6 – Measurement and Geometry (15 days)
A*	A*	Linear measures: American units and metric units (*Appendices)
B*	B*	Weight and mass; medical applications
C*	C*	Capacity; medical applications
D*	D*	Time and temperature
6.2	6.2	Perimeter
6.3	6.3	Area
6.4	6.4	Circles
6.5a	6.5a	Volume and surface area
		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: 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. Learning Support and Services for Students

There are many Camosun services available to help you succeed in and out of the classroom, including education planning, learning and personal support, campus life, work and housing, and getting around.

This information is available at Registration or the College web site http://camosun.ca/services/

ACADEMIC UPGRADING HELP CENTRE (CBA 109)
Help with coursework, reference and learning materials library,
computers and printer, quiet testing and study areas

8. College Policies

ACADEMIC PROGRESS

The purpose of this policy is to enhance a learner's likelihood of success, and to encourage the learner to use College resources effectively.

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

GRADING

The purpose of this policy is to ensure that grading and promotion are consistent and fair.

http://camosun.ca/about/policies/education-academic/e-1-programming-&-instruction/e-1.5.pdf

STUDENT CONDUCT

The purpose of this policy is to provide clear expectations of appropriate academic and non-academic student conduct, and to establish processes for resolution of conduct issues or the imposition of sanctions for inappropriate conduct.

http://camosun.ca/about/policies/education-academic/e-2-student-services-&-support/e-2.5.pdf

9. MATH 034 Essential Skills (based on learning outcomes, coursework and classroom interaction)

Numeracy: numerical calculation and measurement (arithmetic, metric and imperial measurement, graphs, data analysis, formulas, geometry)

- Convert between fractions, decimals, and percents
- Add, subtract, multiply and divide rational numbers
- Solve application problems involving arithmetic, metric and imperial measurement, graphs, data analysis, formulas and geometry
- Use order of operations
- Use the common metric and imperial units for temperature, length, volume and mass
- Convert between and within metric and imperial units using tables and/or calculators
- Use formulas to solve related application problems
- Read, write, and use ratios and proportions to solve percent and other application problems
- Extract and interpret information from line, bar and circle graphs
- Draw line and bar graphs
- Solve simple equations, formulas and related application problems
- Use formulas to find perimeter and area of triangles, squares, rectangles, parallelograms, trapezoids, circles and composite figures
- Use formulas to find the surface area and volume of rectangular solids
- Calculate median, mean, and mode

Reading

- Scan for key information
- Read and correctly follow written directions
- Read a full text to understand, learn or evaluate
- Integrate and synthesize information from multiple sources
- Refer to appropriate written (hardcopy or online) resources when experiencing difficulty

Document Use

- Interpret information in graphs or charts
- Use a table of contents or index to find specific information

Writing

- Organize, record and document
- Write notes in point form

Oral Communication

- Follow oral instructions and explanations
- Seek or obtain information from peers and instructor

Working with Others

- Work independently alongside others
- Use appropriate and respectful communication with peers and others
- Receive and apply relevant feedback

Thinking Skills

- Apply prior learning to facilitate effective study and to integrate information from a text with background knowledge from outside the text
- Identify learning strengths
- Identify and set short and long term goals
- Maintain a personalized learning plan within an individualized educational setting
- Identify key facts and issues related to a problem
- Apply a variety of strategies in solving math-related problems
- Check that answers and solutions to problems are reasonable
- Build strategies for successfully writing math tests
- Prioritize tasks
- Use tools (calendars, agendas, checklists) to help organize tasks and for time management
- Identify, compare, contrast & critically evaluate multiple pieces of information while reading/listening/viewing

Digital Technology

- Use a scientific calculator
- May use online tools to communicate and to learn and practice mathematical skills

Continuous Learning

- Deepen understanding of skill strengths and areas in need of improvement
- Recognize preferred learning styles (learning by seeing, hearing or doing)
- Try new ways of doing things