



School of Access
Mathematics Department
MATH 072 Advanced Mathematics 1
SELF PACED COURSE OUTLINE S01/S02 Fall 2012

1. Instructor Information

Instructor: James Stevenson
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Office: Ewing 342B

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2. Class Times: 5:30-7:50

3. Math Lab: Ewing 342

This is a drop-in centre where you can work on your math homework by yourself or with your classmates and get free help from a tutor.

4. Required Materials:

(a) textbook: *Intermediate Algebra*, 11th edition, Marvin Bittinger

(b) scientific calculator: The Sharp EL 531W model will be the only calculator allowed for this course and most math courses at Camosun.

Supplementary Materials

(c) *Student's Solutions Manual*, Judith Penna (for sale at the bookstore, reference library)

5. Prerequisites:

Prerequisite for Math 073: C+ in Math 072 (or 062), or a C in Math 11, or assessment

Prerequisite for Math 115 (Math 12): Recent B+ (80%) in Math 063/073.

6. Workload/Tips for Success

Out-of-class Workload: 5-10 hours each week.

1. Please do your homework every day. If you fall behind, it will be difficult to catch up. This is not a course that you can put on the "back burner".
2. Attend and participate in every class.
3. If you don't understand something seek help right away. Help is available from friends, your instructor, the tutor in the math room, plus MATHXL.com. Course ID XL0E-T1PP-801Y-42L2
4. Work thoughtfully through the material; don't just try to get it done. LEARN TO LEARN

7. Course Objectives:

The four very ambitious objectives of the course are:

- To learn the basic algebra skills necessary to be successful both in your chosen field of study and in future math courses. This involves learning the vocabulary, notation, rules, and techniques of intermediate algebra, as well as solving applied problems.
- To be able to solve problems involving simple calculations without the aid of a calculator.

- To learn to write mathematics correctly and also to be able to write about the mathematics that you are learning.
- To be able to talk about the mathematics you are learning.

9 O72 text: *Intermediate Algebra*, 11th edition, Marvin Bittinger

O72 text		MATH 072 course content	
NO CALCULATOR	<i>Unit 1 – Review of Basic Algebra</i>	NO CALCULATOR	
R.1	The set of real numbers		
R.2	Operations with real numbers		
R.3	Exponential notation and order of operations		
R.4	Introduction to algebraic expressions		
R.5	Equivalent algebraic expressions		
R.6	Simplifying algebraic expressions		
R.7	Properties of exponents and scientific notation		
	Summary and review, Chapter Test		
	Unit 1 final test		
	<i>Unit 2 – Solving Linear Equations and Inequalities</i>		
1.1	Solving equations		
1.2	Formulas and applications		
1.3a	Applications and problem solving		
1.4	Sets, inequalities, and interval notation		
1.5	Intersections, unions, and compound inequalities		
1.6a-d	Absolute-value equations		
	Summary and review (S/R), ChapterTest (CT)		
	Unit 2 final test		
NO CALCULATOR	<i>Unit 3 – Graphs, Functions, and Applications</i>	NO CALCULATOR	
2.1	Graphs of equations		
2.2	Functions and graphs		
2.3	Finding domain and range		
2.4	Linear functions: graphs and slope		
2.5	More on graphing linear equations		
2.6	Finding equations of lines; applications		
	Summary and review, Chapter Test		
	Unit 3 final test		
	<i>Unit 4 – Systems of Equations</i>		
3.1	Systems of equations in two variables		
3.2	Solving by substitution		
3.3	Solving by elimination		
3.4a	Solving applied problems: two equations		
3.7ab	Inequalities in two variables		
	Summary and review, Chapter Test		
	Unit 4 final test		
	<i>Unit 5 – Polynomials and Polynomial Functions</i>		
4.1	Introduction to polynomials and polynomial functions		
4.2	Multiplication of polynomials		
4.3	Introduction to factoring		
4.4	Factoring trinomials: $x^2 + bx + c$		
4.5	Factoring trinomials: $ax^2 + bx + c$, $a \neq 1$		
4.6	Special factoring		
4.7	Factoring: a general strategy		
	Summary and review, Chapter Test		
	Unit 5 final test		
	MATH 072 review		
	MATH 072 final exam		

8. Assessment (Grades)

Your mark is based on 5 tests, and a final exam.

