CAMOSUN COLLEGE
School of Access
Community Learning Partnerships

MATH 073
Advanced Mathematics 2
2016 Fall

COURSE OUTLINE

The calendar description is available on the web at *http://www.camosun.ca/learn/calendar/current/*

W *Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records, especially to assist in transfer credit to post-secondary institutions.*

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1. Instructor Information

(a) Instructor	Aubrey Bebar			
(b) Office hours	By student request			
(c) Location	CELÁSET program site			
(d) Phone	N/A	**Alternative:**	Facebook messenger	
(e) E-mail	bebara@camosun.ca			
(f) Website	N/A			

2. Intended Learning Outcomes

This course is the second half of Math 11 and is an excellent refresher for those who wish to upgrade before Math 12 or Precalculus. Topics include: rational and radical expressions and equations, quadratic equations and functions, right triangle trigonometry, trigonometric functions of any angle and the Sine and Cosine Laws.

The 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.

3. Required Materials

(a) Textbook: *Intermediate Algebra*, 10th, 11th, or 12th edition, Marvin Bittinger. NOTE: Same textbook for 073.
(b) Scientific calculator: The Sharp EL 531W model will be the only calculator allowed for this course and most math courses at Camosun.
(c) NOTE: Calculators will not be allowed on Tests 1 or 3.

4. Course Content and Schedule

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 the Math Help Centers.

Contact your instructor to get permission to write each test and exam. These exams will be written face-to-face.
Your final grade is based the unit tests and the final exam.

Unit 1 – Polynomials and Polynomial Functions	
4.1	Introduction to polynomials and polynomial functions
4.2	Multiplication of polynomials
4.3	Introduction to factoring
4.4	Factoring trinomials: x2 bx c
4.5	Factoring trinomials: ax2 bx c, a ≠ 1
4.6	Special factoring
4.7	Factoring: a general strategy
4.8	Applications of polynomial equations and functions
Summary & review/Chapter Test	
Unit 1 final test	
Unit 2 – Rational Expressions, Equations, & Functions	
5.1	Rational expressions and functions: multiplying, dividing, and simplifying
5.2	LCMs, LCDs, addition, and subtraction
5.3	Division of polynomials
5.4	Complex rational expressions
5.5	Solving rational equations
5.6	Applications and proportions (omit section b)
5.7	Formulas and applications
5.8	Variation and applications
Summary & review/Chapter Test	
Unit 2 final test	
Unit 3 – Radical Expressions, Equations, & Functions	
6.1	Radical expressions and functions
6.2	Rational numbers as exponents
6.3	Simplifying radical expressions
6.4	Addition, subtraction, and more multiplication
6.5	More on division of radical expressions
6.6	Solving radical equations
6.7	Applications involving powers and roots
6.8	The complex numbers
Summary & review/Chapter Test	
Unit 3 final test	
Unit 4 – Quadratic Equations and Functions	
7.1	The basics of solving quadratic equations
7.2	The quadratic formula
7.3	Applications involving quadratic equations
7.4	More on quadratic equations
7.5	Graphing *f(x)* a(x h)2 k
7.6	Graphing *f(x)* ax2 bx c
7.7a	Mathematical modeling with quadratic functions
Summary & review/Chapter Test	
Unit 4 final test	
Unit 5 – Trigonometry	
5.1	Trigonometric functions of acute angles
5.2	Applications of right triangles
5.3	Trigonometric functions of any angle
7.1	The law of sines
7.2	The law of cosines
Unit 5 final test	
MATH 073 review	
MATH 073 final exam	

5. Basis of Student Assessment (Weighting)

- Five Unit Exams 50% *
- Final Exam 50% or 100% **

*****As this is a mastery-based course, the goal for each test is 65% or better. If you receive between 60 & 70%, you have the option of rewriting once. If you scored less than 60% then you will need to rewrite the test before you continue. Note: Tests can only be rewritten once for a total of two times. The lowest test mark will be dropped when calculating the test average.

****** If your term average is at least 50%, all your tests are complete, and your final exam mark is higher than your term average, then your final course grade will be based 100% on your final exam mark.

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6. Grading System

[X] Standard Grading System (GPA)

[ ] Competency Based Grading System

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, Student Services or the College web site at http://www.camosun.bc.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.
http://www.camosun.bc.ca/policies/policies.html

A. GRADING SYSTEMS *http://www.camosun.bc.ca/policies/policies.php*

The following two grading systems are used at Camosun College:

1. Standard Grading System (GPA)

Percentage	Grade	Description	Grade Point Equivalency
90-100	A+		9
85-89	A		8
80-84	A-		7
77-79	B+		6
73-76	B		5
70-72	B-		4
65-69	C+		3
60-64	C		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

2. Competency Based Grading System (Non GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes

Grade	Description
COM	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

B. Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at http://www.camosun.bc.ca/policies/E-1.5.pdf for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	*Incomplete*: A temporary grade assigned when the requirements of a course have not yet been completed due to hardship or extenuating circumstances, such as illness or death in the family.
IP	*In progress*: A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	*Compulsory Withdrawal*: A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.