CAMOSUN COLLEGE
School of Access
Math Access

MATH 073 S01/S02
Advanced Mathematics 2
2012 Fall
COURSE OUTLINE

The calendar description is available on the web @ _____

Ω *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 James Stevenson
(b) Office hours MTWTH 4:00-5:30
(c) Location E342B
(d) Phone 370-3303 **Alternative:** _____
(e) E-mail stevensj@camosun.ca

(f) Website _____

2. Intended Learning Outcomes

(If any changes are made to this part, then the Approved Course Description must also be changed and sent through the approval process.)

The four very ambitious objectives of the course are:

1. use Mathematics at an ABE Advanced level with competence
2. use skills in foundational algebra and triangle trigonometry to solve problems
3. use knowledge of algebra and triangle trigonometry as a basis for further study in pre-calculus, the sciences and other fields
4. build on your ability to read, write and talk about the mathematics that you are learning.

3. Required Materials

(a) textbook: *Intermediate Algebra*, 9th edition, Marvin Bittinger
(b) module: *Trigonometry* (2005) Beecher/Penna/Bittinger
(c) scientific calculator
[Note: Sharp EL 531W model will be the only calculator allowed for most fall/05 math courses]

Supplementary Materials

(d) *Student's Solutions Manual*, Judith Penna (for sale at the bookstore)
(e) *Instructor's Solutions Manual*, Judith Penna (can be viewed in math lab)

4. Course Content and Schedule

(Can include: Class hours, Lab hours, Out of Class Requirements and/or Dates for quizzes, exams, lecture, labs, seminars, practicums, etc.)

073 Text: *Intermediate Algebra*, 10th edition, Marvin Bittinger
Trig module for Unit 5: *Trigonometry* (2005) Beecher/Penna/Bittinger
063 Text: Introductory and Intermediate Algebra, 2nd edition, Bittinger, Beecher

*****Odd-numbered questions only*****

	073 text	MATH 073 course content	video	Homework
		Unit 1 – Polynomials and Polynomial Functions		
	4.1	Introduction to polynomials and polynomial functions	9	1,5,9,15,21,23-29,35,37,39,41,45,51,57,65,71,73,79
	4.2	Multiplication of polynomials		1,5,7,9,,13-29,39,43,55,,61,65,67,83,,85b
	4.3	Introduction to factoring	9	1,5,9,13,17,23,27,31,35,37,41,45,
	4.4	Factoring trinomials: $x^2 + bx + c$	9	1-33, omit #31
	4.5	Factoring trinomials: $ax^2 + bx + c$, $a \neq 1$	9	1,5,9,15,19,23,33,37,43
	4.6	Special factoring	10	1,5,17,33,35,39,47,53,57,65,67,69,73,77,87,93,
	4.7	Factoring: a general strategy	10	1,3,7,9,11,17,27,31,35,43,
	4.8	Applications of polynomial equations and functions	10	1,5,9,13,17,21,25,29,37,39,43,47,49,51,61,65,67
		Summary and review, Chapter Test		
		Unit 1 Test		
		Unit 2–Rational Expressions, Equations, & Functions		
	5.1	Rational expressions and functions: multiplying, dividing, and simplifying	11	3,5,11,13,15,19,21,25,29,31,35,39,41,47,51,55
	5.2	LCMs, LCDs, addition, and subtraction	11	3,11,13,19,23,27,31,33,35,39,45,49,55,63,67,71
	5.3	Division of polynomials	11	1,5,9,11,15,19,21,23,29,31,33,
	5.4	Complex rational expressions	11	1,5,9,13,17,19,21,23,27,29,31
	5.5	Solving rational equations	12	1,5,9,11,15,19,23,25,27,33,35,41,43
	5.6	Applications and proportions (omit section b)	12	1-9,23-31 (odd)
	5.7	Formulas and applications	12	1-23 (odd)
	5.8	Variation and applications	12	1,5,7,15,17,21,25,,29,39,41
		Summary and review, Chapter Test		
		Unit 2 Test		
		Unit 3–Radical Expressions, Equations, & Functions		
	6.1	Radical expressions and functions	13	1,5,7,9,11,13,17,23,27,49,51,61,63,65
	6.2	Rational numbers as exponents	13	3,7,9,15,21,25,29,33,37,39,41,43,45,49,51,53,55 59,63,69,75,79,
	6.3	Simplifying radical expressions	13	1,5,9,13,17,21,25,29,33,,37,39,41,49,53,55,59,63,67,71, 75,79,83,87,89
	6.4	Addition, subtraction, and more multiplication	13	1,5,9,13,17,19,23,29,33,37,41,45,51,55,61,65,67
	6.5	More on division of radical expressions	14	1,5,9,13,17,21,25,29,31,34
	6.6	Solving radical equations	14	1,5,9,17,19,21,27,29,33,37,41,47,53,55,57
	6.7	Applications involving powers and roots	14	1,5,7,11,13,17,21,23,29,31
	6.8	The complex numbers	14	1,5,13,17,19,27,31,35,39,47,53,57,63,71,77,81,89
		Summary and review, Chapter Test		
		Unit 3 Test		
		Unit 4 – Quadratic Equations and Functions		
	7.1	The basics of solving quadratic equations	15	1,5,9,13,17,21,25,33,39,43,47,49,55,
	7.2	The quadratic formula	15	1,3,11,17,21,29,33,41
	7.3	Applications involving quadratic equations	15	1,3,5,9,13,19,21,27,31,35,37,41,43,47
	7.4	More on quadratic equations	15	1,5,15,17,23,29,31,33,35,37,43,47,49,55
	7.5	Graphing $f(x) = a(x-h)^2 + k$	16	1,5,7,9,13,17,19,21,23
	7.6	Graphing $f(x) = ax^2 + bx + c$	16	1,5,7,9,15,19,21
	7.7	Mathematical modeling with quadratic functions	16	1,5,9,11,15,17,19,21,23,33
		Summary and review, Chapter Test		
		Unit 4 Test		
		Unit 5 – Trigonometry **(from the Trig module)**		
	5.1	Trigonometric functions of acute angles		1-11,15-29,55,65,67,71,77,81-91
	5.2	Applications of right triangles		1,3,9,13,15,17,21,27,29,31
	5.3	Trigonometric functions of any angle		1,5-17,25,27,33,35,39-71,75,79,83,87-106

	7.1	The law of sines		1,3,5,9,13,15,25,27
	7.2	The law of cosines		1,3,7,17,19,25,31
		Trig Practice Test		
		Trig/ Course Review Take-home Test		
		MATH 073 final exam June 27-29		

5. Basis of Student Assessment (Weighting)

(Should be directly linked to learning outcomes.)

(a) Assignments

(b) Quizzes - 5 Tests **50%**

(c) Exams **50%**

(d) Other (e.g. Project, Attendance, Group Work)

6. Grading System

(If any changes are made to this part, then the Approved Course description must also be changed and sent through the approval process.)
(Mark with "X" in box below to show appropriate approved grading system – see last page of this template.)

[X] Standard Grading System (GPA)

[ ] Competency Based Grading System

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

Math Lab: Ewing 342 plus Ewing 224
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. Math lab hours will be posted on the math lab door and on my website.

Prerequisites:
Prerequisite for Math 073:B- (70%) in Math 062/072 or a C in Math 11 or assessment
Prerequisite for Math 115 (Math 12): Recent B+(80%) in Math 063/073. Aim for at least 85% on your tests
in Math 073 to allow for some slippage on the final exam.

Workload/Tips for Success
Out-of-class Workload: 10- 20 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, or the tutor in the math room.
4. Work thoughtfully through the material; don't just try to get it done.

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

ACADEMIC PROGRESS POLICY

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

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