



CAMOSUN COLLEGE
School of Access
Department of Mathematics & Statistics

Math 073 S02
Advanced Mathematics 2
Spring 2016

COURSE OUTLINE

The calendar description is available on the web @ camosun.ca/learn/calendar/current

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.

1. Instructor Information

(a) Instructor	Crystal Lomas
(b) Office hours	Tues. and Thurs. 12:30 pm – 1:20 pm. Additional hours by appointment.
(c) Location	E270
(d) Phone	250-370-3428 Alternative: _____
(e) E-mail	LomasC@camosun.bc.ca
(f) Website (D2L)	online.camosun.ca

2. Intended Learning Outcomes

Upon successful completion of the course the student will be able to:

1. Use basic mathematical operations (& factoring) to simplify polynomial expressions and solve polynomial equations and word problems.
2. Perform mathematical operations on rational algebraic expressions and solve equations and word problems involving rational algebraic equations.
3. Divide polynomials using long and synthetic division.
4. Perform mathematical operations on complex numbers.
5. Simplify and perform mathematical operations on square roots (and other roots) involving variables and solve radical equations.
6. Use rational exponents when working with radical expressions to aid in simplifying these expressions.
7. Solve quadratic equations, and solve practical problems involving quadratic type equations using the methods of completing the square, factoring, square root property, and the quadratic formula.
8. Graph and analyze quadratic functions, including finding the vertex, intercepts, axis of symmetry, and maximum or minimum values of the function.
9. Use the definitions of the basic trigonometric functions to find ratios, angles (degree measure only), and solve practical problems involving right triangles.
10. Find the trigonometric ratios of special triangles (exact values), and find the trigonometric function values of any angle in standard position using a scientific calculator.
11. Solve basic trigonometric equations.
12. Use the Law of Sines and the Law of Cosines to solve non-right triangles (oblique), and practical problems involving these triangles.

3. Required Materials

- (a) **Required Textbook:** Intermediate Algebra, 12th edition, M. L. Bittinger. You may choose to purchase either the print textbook or a code for access to the digital textbook (which also allows access to the solution manual, extra practice questions, and video lessons). The book store sells bundles with various combinations of the text and/or solutions manual and/or digital code.
- (b) **Calculator:** The only calculator allowed on tests and the final exam is the Sharp EL-531 scientific calculator.

4. Course Content and Schedule

Math 073 covers Chapter 4 through Chapter 7 in the textbook plus a trigonometry section available on D2L:

Unit 1:	Ch 4	Polynomials and Polynomial Functions	4.1-4.8
Unit 2:	Ch 5	Rational Expressions, Equations, Functions	5.1-5.8
Unit 3:	Ch 6	Radical Expressions, Equations, Functions	6.1-6.8
Unit 4:	Ch 7	Quadratic Equations and Functions	7.1-7.7a
Unit 5:	Trig	Trigonometry	6.1*-6.3*, 8.1*-8.2*

A suggested schedule for completing the course in one semester is available as a handout and on D2L. There is also a blank schedule that you can use to create your individual study plan.

The exercises to help you prepare for unit tests are available as a handout and on D2L.

Since this is a self-paced course, there will not be a lecture during class time. Instead, class time is a time for you to study at your own pace and ask any questions that have come up since the last time you were in class. You are encouraged to come to each class (it will help you stay on track with your studies), but you will also need to spend a considerable amount of time outside of class studying.

5. Basis of Student Assessment (Weighting)

(a) **Term Tests – 50%**

There are five (equally-weighted) unit tests in Math 073. When you feel you are prepared to take a unit test, please talk to your instructor to obtain a test permission slip. This gives you permission to write your test in the Math Help Centre (E342) within one week of the slip's issue date. You can write your tests any time the Math Help Centre is open (not just on class days!).

On each unit test: if you score at least 65%, you can move on to the next unit. If you do not score at least 65%, you must re-study and re-take the test until you get 65%.

You will need approximately 1.5 hours to complete each term test.

Note: If you have completed Math 072 within the last year, you may be able to use your Math 072 Unit 5 test score as your Math 073 Unit 1 test score. See your instructor for details.

(b) **Final Exam – 50%**

There is a cumulative final exam for Math 073. It covers all of the material from Chapter 4 to Chapter 7 in the text as well as the material from the trigonometry supplement. After completing all of the unit tests, obtain a test permission slip from your instructor and write the final exam in the Math Help Centre. There are no rewrites for the final exam.

You will need approximately 3 hours to write the final exam.

6. Grading System

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>

ACADEMIC INTEGRITY

The Department of Mathematics and Statistics has prepared a handout called *Student Guidelines for Academic Integrity* to help you interpret college policies involving student conduct, academic dishonesty, plagiarism, etc. It is your responsibility to become familiar with the contents of the document and the college policies it references.

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	<i>Incomplete:</i> 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	<i>In progress:</i> 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	<i>Compulsory Withdrawal:</i> 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.