

	<p>School of Access Department of Mathematics & Statistics MATH 137 001 Algebra and Triangle Trigonometry Summer 2017</p>
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COURSE OUTLINE

The course description is online @ <http://camosun.ca/learn/calendar/current/web/math.html>

⚡ Please note: the College electronically stores this outline for five (5) years only. It is **strongly recommended** you keep a copy of this outline with your academic records. You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

1. Instructor Information

(a)	Instructor:	Crystal Lomas
(b)	Office Hours:	Interurban: Mon & Wed 9:30-10:20 Lansdowne: Tues 1:30-2:20 & 4:30-5:20 Thurs 1:30-2:20 & 4:30-5:20
(c)	Location:	Ewing 270 (Lansdowne) & CBA 156 (Interurban)
(d)	Phone:	250-370-3428
(e)	Email:	LomasC@camosun.bc.ca
(f)	Websites:	D2L: http://online.camosun.ca MyMathLab: http://pearsonmylabandmastering.com

2. Intended Learning Outcomes

(5 credits) This course provides a foundation for the further study of mathematics. Topics include linear equations and inequalities; function notation; linear functions; systems of linear equations in two variables; polynomial, rational and radical expressions and equations; quadratic functions and equations; and triangle trigonometry including the Sine and Cosine Laws.

Source: Camosun College calendar <http://camosun.ca/learn/calendar/current/web/math.html>

3. Prerequisites and Exit Grade

- (a) Prerequisites: “B” in Applications of Math 11; or “C” in Principles of Math 10, or Foundations of Math and Pre-calculus 10, or Foundations of Math 11, or Applications of Math 12, or Math 053; or “C-” in Principles of Math 11 or Pre-calculus 11; or assessment.
- (b) Exit Grade: B required for Math 115; C+ required for Math 107; C required for Math 112 or 109. Note that Math 137 cannot be used by BBA students to satisfy the UT math requirement (although it can satisfy pre-requisites).

4. Required Materials

- (a) Textbook: *Intermediate Algebra*, 12th Edition, M.L. Bittinger **with digital access code for MyMathLab (MML)**. If you do not want a print text, then you can purchase the standalone digital code since it grants access to the digital textbook (and student solutions manual). I recommend purchasing the loose-leaf text & MML bundle sold at the bookstore.
- (b) Calculator: The only calculator allowed on tests and the final exam is the *Sharp EL-531* scientific calculator. You must have your own calculator for tests.

5. Basis of Student Assessment (Weighting)

Grade Calculation

The final grade will be calculated according to the following breakdown:

Assignments:	10% total
Term Tests:	40% total
Final Exam:	50%

Assignments

There will be 5 assignments, equally-weighted.

- Each assignment consists of textbook exercises and MyMathLab assignments.
- Work on assignments regularly – the required problems in Part 1 should be completed shortly after covering the corresponding section in class. The MyMathLab portions will usually be due two days after finishing each chapter.
- You may submit assignments early.
- If a serious situation arises that prevents you from submitting an assignment on time, please email me as soon as possible and provide documentation (i.e. a doctor's note).

Term Tests

There will be 5 in-class term tests (Tests 1-4 are worth 9% each & Test 5 is worth 4%).

- You must write term tests during class time on the scheduled dates.
- If a serious situation arises that prevents you from writing a test at the scheduled time, please email me as soon as possible and provide documentation (i.e. a doctor's note).
- No electronic device other than the approved calculator may be used on term tests.
- No papers, references, books, etc., may be used on term tests.
- There is absolutely **no collaboration** permitted on term tests.

Final Exam

The final exam will cover the entire course and will be 3 hours long. As stated in the current college calendar, "students are expected to write tests and final examinations at the scheduled time and place." Exceptions will only be considered due to **emergency** circumstances as outlined in the calendar. The calendar specifically states that "holidays or scheduled flights are not considered to be emergencies." The final exam schedule is posted on May 19th and spans Aug 8–16.

6. Grading System

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	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

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, at Student Services, or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**. It is the student's responsibility to become familiar with the content of this policy. The policy is available in each School Administration Office, at Student Services, and the College web site in the Policy Section.

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-and-instruction/e-1.1.pdf>

STUDY TIPS

It is recommended that approximately **8-12 hours** per week be spent studying for this course outside of class time. Find a study buddy to discuss problems, use the math labs, spend time reviewing your notes, and thoughtfully complete the textbook exercises.

8. Course Content and Schedule

Section	Topic	Section	Topic
Chapter R	Review of Basic Algebra	Chapter 5	Rational Expressions, Equations, and Functions
R.1	Set of Real Numbers	5.1	Rational Expressions, Functions: Mult./Div.
R.2	Operations with Real Numbers	5.2	LCMs, LCDs, Addition and Subtraction
R.3	Exponential Notation and Order of Operations	5.3	Division of Polynomials
R.4	Introduction to Algebraic Expressions	5.4	Complex Rational Expressions
R.5	Equivalent Algebraic Expressions	5.5	Solving Rational Equations
R.6	Simplifying Algebraic Expressions	5.6c	Uniform Motion Applications
R.7	Properties of Exponents and Scientific Notation	5.7	Formulas and Applications
Chapter 1	Solving Linear Equations and Inequalities	5.8	Variation and Applications
1.1	Solving Equations	Chapter 6	Radical Expressions, Equations, and Functions
1.2	Formulas and Applications	6.1	Radical Expressions and Functions
1.3	Applications and Problem Solving	6.2	Rational Numbers as Exponents
1.4	Sets, Inequalities, and Interval Notation	6.3	Simplifying Radical Expressions
1.5	Intersections, Unions, and Compound Inequalities	6.4	Addition, Subtraction, and More Multiplication
1.6a-d	Absolute-Value Equations	6.5	More on Division of Radical Expressions
Chapter 2	Graphs, Functions, and Applications	6.6	Solving Radical Equations
2.1	Graphs of Equations	6.7	Applications Involving Powers and Roots
2.2	Functions and Graphs	6.8	The Complex Numbers
2.3	Finding Domain and Range	Chapter 7	Quadratic Equations and Functions
2.4	Linear Functions: Graphs and Slope	7.1	Basics of Solving Quadratic Equations
2.5	More on Graphing Linear Equations	7.2	The Quadratic Formula
2.6	Finding Equations of Lines; Applications	7.3	Applications Involving Quadratic Equations
Chapter 3	Systems of Equations	7.4	More on Quadratic Equations
3.1	Systems of Equations in Two Variables	7.5	Graphing $f(x) = a(x - h)^2 + k$
3.2	Solving by Substitution	7.6	Graphing $f(x) = ax^2 + bx + c$
3.3	Solving by Elimination	7.7a	Mathematical Modeling with Quadratic Functions
3.4a	Solving Applied Problems	Trigonometry*	Trigonometry*
3.7ab	Systems of Inequalities in Two Variables	6.1*	Trig Functions of Acute Angles
Chapter 4	Polynomials and Polynomial Functions	6.2*	Applications of Right Triangles
4.1	Introduction to Polynomials and Polynomial Functions	6.3*	Trig Functions of Any Angle
4.2	Multiplication of Polynomials	8.1*	The Law of Sines
4.3	Introduction to Factoring	8.2*	The Law of Cosines
4.4	Factoring Trinomials: $x^2 + bx + c$		
4.5	Factoring Trinomials: $ax^2 + bx + c$		
4.6	Special Factoring		
4.7	Factoring: A General Strategy		
4.8	Applications of Polynomial Equations		

*Trigonometry material posted on D2L.

Math 137-001 Summer 2017 Schedule

Monday	Tuesday	Wednesday	Thursday
May 2017			
1 Intro, R1-R2	2 R3-R7	3 R7	4 1.1-1.3
8 1.4-1.5	9 1.5-1.6	10 2.1-2.3	11 2.4-2.5 M1 Due
15 2.6 Fee Deadline	16 3.1-3.2	17 3.3-3.4a Assignment 1 Due M2 Due	18 3.4a-3.7ab
22 HOLIDAY	23 Review	24 Test 1 (R,1,2)	25 4.1-4.2 M3 Due
29 4.2-4.3	30 4.3-4.4	31 4.5-4.6	
June 2017			
			1 4.7
5 4.8	6 5.1	7 5.2-5.3 Assignment 2 Due M4 Due	8 5.3-5.4
12 5.5	13 Review	14 Test 2 (3,4)	15 5.6c-5.7
19 5.7-5.8	20 5.8-6.1	21 6.1-6.2	22 6.2-6.3 M5 Due
26 6.4-6.5	27 6.6	28 6.7 Assignment 3 Due M6 Due	29 6.8
July 2017			
3 HOLIDAY	4 Review	5 Test 3 (5, 6.4)	6 7.1 M7 Due
10 7.2	11 7.3	12 7.4-7.5	13 7.5-7.6
17 7.6-7.7a	18 6.1*	19 6.2*-6.3* Assignment 4 Due M8 Due	20 6.3*
24 8.1*-8.2*	25 Review	26 Test 4 (6.5,7)	27 8.2*
31 Review Assignment 5 Due M9 Due			
August 2017			
	1 Review	2 Test 5 (Trig)	3 Review
7	8 Exams	9 Exams	10 Exams
14 Exams	15 Exams	16 Exams	

9. Other Information

Extra Help

You can get free face-to-face tutoring from our instructional assistant in the Math Lab E224 or the Math Help Centre E342. Hours are posted on the lab doors and on the web <http://camosun.ca/services/help-centres/math.html>.

D2L

This class uses Desire2Learn (D2L), an online course management system. All course related materials, grades, and announcements will be available on D2L. It is your responsibility to ensure you have access to D2L and to check it regularly. I recommend setting up alerts by clicking on your name in the top right corner and navigating to Notifications.

MyMathLab

Part of each assignment will be submitted using the online homework manager MyMathLab. For instructions on how to register for MyMathLab, see the handout or the PDF on D2L under Course Information. Our CourseID is **lomas21113**.

Academic Integrity

The Department of Mathematics and Statistics has prepared a “red 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.

Class Time

It is expected that you will attend each class and be an active learner. This means participating in class discussions and attempting any problems the class is working on. Please come prepared with paper, pencils, a ruler, calculator, etc. Bringing your textbook is not required, but you may find it useful. If you have the loose-leaf version, you can bring just the relevant sections to class.