

**CAMOSUN COLLEGE**  
**Mathematics Department**  
**Course Outline**  
**MATH 063 College Mathematics 2**

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**Description:** This course is both a continuation of MATH 062 and an excellent refresher for those who wish to upgrade in algebra and triangle trigonometry before pre-calculus. Topics: functions, polynomials, rational expressions and equations, radicals and equations, quadratic equations and functions, and triangle trigonometry.

**Classes:** Monday to Friday 9:00 am – 10:50 am in Young 217.

**Prerequisite:** B- in MATH 062 or B- in ABMA 062 or C in Math 11 or C in Math 172 or by assessment. Note: Students with a C in Math 11 can register for either MATH 062 or 063 without an assessment.

**Exit Grade:** Students need a B- in MATH 063 to continue into MATH 115.

**Alternate Delivery:** Students who wish to do this course in a self-paced format may register for ABMA 063. (Note: ABMA 063 uses a different textbook.)

**Textbook:** Many students will already have the materials from MATH 062. Students purchasing the material new from the bookstore will receive a package with items 1 – 5 . Items 2 – 5 were packaged “free” with the Lial and Hornsby textbook.

1. 1. [M.L. Lial and J. Hornsby, \*Intermediate Algebra, Eighth Edition\*](#), Addison-Wesley, Reading, Massachusetts, 2000. **(required)**
2. M.L. Bittinger and J.A. Beecher, *Trigonometry Update*, Addison-Wesley, Reading, Massachusetts, 1993. **(required)**
3. 3. “Pass the Test” Interactive CD-ROM.
4. 4. MathXL ID and password for online practice tests and a personalized study plan identifying topics that need more review.
5. 5. Math Tutor Centre – telephone and e-mail help with worked examples and odd numbered exercises in the textbook
6. [Algebra Handout](#), can be printed off the web. **(required)**

A *Student's Study Guide and Journal* and a *Student's Solutions Manual* are available as optional supplementary material to accompany Lial and Hornsby's *Intermediate Algebra*.

**Calculator Policy:** You will need a scientific calculator for this course. Only ordinary scientific calculators (i.e. non-graphing and non-programmable) are permitted on exams.

**Grade Calculation:** The final grade will be calculated as follows:

Term work (consisting of five term tests): 50%

Final Exam: 50%

The final exam will cover the entire course and will be 3 hours long. It will be written during the week following the end of classes. The time and place will be scheduled by the College. If your final exam grade is better than your term work grade and your term work is judged to be satisfactory, then the final exam grade may count for 100% of the course.

**Grade Scale:**

%	Grade	Grade Point Value	Description
95 – 100	A+	9	Exceptional, outstanding or excellent performance. Student shows initiative and an insightful grasp of theory and technique.
90 – 94	A	8	
85 – 89	A-	7	
80 – 84	B+	6	Very good or good performance. Student shows a good overall grasp of theory and technique or an excellent grasp in some areas balanced by a satisfactory grasp in others.
75 – 79	B	5	
70 - 74	B-	4	
65 – 69	C+	3	Satisfactory performance. Student shows a satisfactory grasp of theory and technique. Students may experience some difficulty being successful in courses for which this course is a prerequisite.
60 - 65	C	2	
50 –59	D	1	Marginal performance. Student has a weak grasp of theory and technique, which is insufficient to take courses for which this course is a prerequisite.
0 - 49	F	0	Unsatisfactory performance. Student should either repeat the course or consider taking a course at a lower level.

**Attendance:** It is very difficult to be successful if you miss many classes. If you must miss classes due to illness or other reasons, let me know and I can give

you an idea of what work was covered. If you must miss a test due to illness, it is very important that you contact me so that we can make appropriate accommodations.

**Resources:** Math Lab (Lansdowne Library Room 114). This is a drop-in centre where you can get help with your math homework. The hours will be posted on the door. I will post regular office hours, check my office door or my web page for the times. **Set up a regular study schedule !!** You will probably have to do between 5 and 10 hours of homework a week to keep up.

**Course Content and Time Line:**

Hrs	Section	Title	Comments
<b>L&amp;H Ch. 2-3 Word Problems and Functions</b>			
1.5	2.4	More Applications of Linear Equations	Only $d = rt$ problems
1.5	3.5	Introduction to Functions	Review from 062 (except that examples 4, 6, and 7 are new).
<b>L&amp;H Ch. 5 Exponents and Polynomials</b>			
1	5.1	Integer Exponents and Scientific Notation	Review from 062 (except that scientific notation is new).
1	5.2	Addition and Subtraction of Polynomials	
1	5.3	Polynomial Functions	Omit example 3. Not responsible for learning basic shapes of graphs but should be able to graph using tables of values.
1	5.4	Multiplication of Polynomials	
1	5.5	Greatest Common Factors; Factoring by Grouping	
2	5.6	Factoring Trinomials	
1.5	5.7	Special Factoring	
1	5.8	General Methods of Factoring	
1.5	5.9	Solving Equations by Factoring	

<b>L&amp;H Ch. 6</b>		<b>Rational Expressions</b>	
1.5	6.1	Rational Expressions and Functions; Multiplication and Division	
1.5	6.2	Addition and Subtraction of Rational Expressions	
1.5	6.3	Complex Fractions	
1	6.4	Division of Polynomials	
1.5	6.6	Graphs and Equations with Rational Expressions	
1	Summary	Exercises on Operations and Equations with Rational Expressions	
2	6.7	Applications of Rational Expressions	
<b>L&amp;H Ch. 7</b>		<b>Roots and Radicals</b>	
1	7.1	Rational Exponents and Radicals	Review from 062 (except that example 4 is new).
1.5	7.2	Simplifying Radical Expressions	
1	7.3	Addition and Subtraction of Radical Expressions	
1.5	7.4	Multiplication and Division of Radical Expressions	
2	7.5	Graphs and Equations with Radical Expressions	
1.5	7.6	Complex Numbers	
<b>L&amp;H Ch. 8</b>		<b>Quadratic Equations and Inequalities</b>	
2	8.1	Completing the Square	
2	8.2	The Quadratic Formula	
1.5	8.3	Equations Quadratic in Form	
1.5	8.4	Formulas and Applications	
2	8.5	Graphs of Quadratic Functions	
2	8.6	More About Parabolas; Applications	Omit Objective 5 on horizontal parabolas.
<b>Handout</b>		<b><a href="#">Algebra Handout</a></b>	
5		Algebra Problems Handout	The students should do all 100 problems from the handout, some of which are challenging and will be good preparation for Math 115.
<b>B&amp;B Ch. 6/8</b>		<b>Triangle Trigonometry</b>	
3	6.1	Trigonometric Functions of Acute	Omit minutes and

		Angles	seconds.
2	6.2	Applications of Right Triangles	
2	6.3	Trigonometric Functions of Any Angle	
2	8.1	The Law of Sines	
2	8.2	The Law of Cosines	
<b>59.5</b>			

**L&H** = Lial and Hornsby's *Intermediate Algebra*

**B&B** = Bittinger and Beecher's *Trigonometry Update*

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