



School of Access  
Community Learning Partnerships

**Math 073 D19**  
**Advanced Mathematics 2**  
**Fixed Pace Fall 2014 Course Outline**

---

This course outline is available online at [my faculty website](#).

See course descriptions and prerequisites in [the college calendar](#).

Important college dates are available at [the college website](#).

Please note: This outline will not be kept indefinitely. It is recommended students keep this outline for their records.

---

### **Instructor Information**

Instructor -- Martin Buck

- a) The online classroom is available 24 hours a day and seven days a week. See below for instructor contact info. Google Hangout, Facetime and Skype interactions are available by prior arrangement.
- b) The online classroom is located at <http://mathxl.com>.
- c) Instructor's faculty website is at <http://lwebs.ca>
- d) Students are invited to join the instructor's math circle at [Google Plus](#)
- e) E-mail, Google Hangout and Facetime: [martin@lwebs.ca](mailto:martin@lwebs.ca)  
Skype: [mbuck\\_skype](#)

### **Goal Statement and Intended Learning Outcomes**

The goals for Advanced Algebraic Mathematics are to

- (1) Provide students with sufficient mathematical knowledge for academic, career, and technical programs whose admission requirements include Math 11 equivalence and
- (2) Prepare students to enter Provincial Level mathematics courses.

Advanced Mathematics learning outcomes are available at the British Columbia Ministry of Advanced Education Adult Basic Education [Articulation Handbook site](#).

### **Course Requirements**

- (a) An Access Code to our online classroom is available for purchase online for at <http://mathxl.com>. This site is based on *Intermediate Algebra*, 11<sup>th</sup> edition, Marvin Bittinger Bittinger and *Trigonometry* (excerpt from *Trigonometry and Algebra*), 4th Edition, Addison-Wesley, Boston, J.A. Beecher, J.A. Penna, and M.L. Bittinger.  
NOTE: The Access Code also provides access to a plethora of textbook publisher digital resources including animations, videos, podcasts and digital pages of the textbook. A hard copy of the text book is not required.
- (b) Unrestricted access to an Internet connected computer. See Computer System Requirements at <http://mathxl.com/support/system.htm>.
- (c) Scientific calculator. The Sharp EL 531W model is the calculator recommended by the Camosun math department. Make sure your web browser is properly configured by [visiting this link](#) and following the instructions there.

Prerequisites and Exit Grade: See the [Camosun College Calendar](#).

## Course Information

Like the section offered on campus, this online section is [mastery based](#). Unlike the on campus section, it is fixed-paced. That is it must be completed in one term or less. For details on how the online system works, review the information at my [faculty website](#). Instructions on how to gain access to the online classroom are available at [this link](#). When you login to the course, you will see a list of Upcoming Assignments. Click on the Calendar button for a complete list of assignment due dates. You are responsible for regular communication with your instructor as well as logging into the website and completing the assignments before their due dates.

## Assignments

All assignments are completed online and are due before 11:59 pm on the designated date. Late assignments will receive a zero grade. Success will come by working on your math every day, 10 to 20 hours per week. The final exam is completed online, but under invigilated or supervised conditions through an invigilator arranged by the student and approved by the instructor.

Please note that the MathXL system keeps track of how much time you devote to each of the assignments. If you miss a due date on a pre or post-test for any reason, a score of zero will be applied. Thus it is best to complete assignments well ahead of their due dates. Plan on working at least three assignments ahead of the due dates. That way when life intervenes (e.g., illness, family or work issues), you will have provided yourself an extension to the due dates.

<b>Grade Calculation:</b>	<sup>1</sup> Online Pre and Post-tests	15%
	<sup>2</sup> Study Plan/Quiz Me Exercises	10%
	<sup>3</sup> Unit Tests	25%
	<sup>4</sup> Final Exam	50%

<sup>1</sup> The mastery level for each pre and post-test is 75% or better.

<sup>2</sup> Complete the assigned 'Quiz Me' exercises to the 75% or better level.

<sup>3</sup> Scores less than 65% on a unit test require a rewrite. Unit Tests can only be rewritten once. All test scores are averaged to calculate a final mark. A 10% per day late penalty will apply.

<sup>4</sup> To pass the course you must score at least 50% on the final exam and have an overall average of 60%. There is no rewrite on the final exam. If the average of your term mark and your exam mark is not high enough to proceed to your chosen program, then you will need to repeat the course to achieve the required grade.

## Standard Grading System (GPA)

0-49	50-59	60-64	65-69	70-72	73-76	77-79	80-84	85-89	90-100
<b>F</b>	<b>D</b>	<b>C</b>	<b>C+</b>	<b>B-</b>	<b>B</b>	<b>B+</b>	<b>A-</b>	<b>A</b>	<b>A+</b>

**NS** -- Students who do not login to the online classroom by the first day of class and who do not contact the instructor within two working days following the first class with a satisfactory explanation for their absence will be assigned a "NS" grade and their seat will be forfeited.

**W** -- If you unable to devote the time required to succeed in the course, then you need to officially withdraw to avoid getting an F. See this [Important Dates link](#) for the last day to do that.

**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** -- An "in-progress" grade is only given in self-paced courses. If you have not finished the course at the end of the term but have successfully completed at least 3 unit tests that term, then you may request a transfer to a self-paced section. If such a seat is available you will be awarded an IP grade so you can complete the course the next term. NOTE: The college policy states you may only receive two IP grades for a course; the third time you register for the course, you will be assigned an F if you do not complete the course.

## Course Content

All assignments are completed online. Access your online assignments at <http://mathxl.com> by logging in and clicking on the **Homework and Tests** button. Details at <http://www.lwebs.ca/index.php/the-online-math-system/>.

The final exam is completed online, but under invigilated or supervised conditions through an invigilator arranged by the student and approved by the instructor. More details will be found in **Announcements** area of the online classroom at <http://mathxl.com>.

For specific assignment details and due dates, login to your online classroom at <http://mathxl.com>. Upcoming assignments are listed on the course homepage. All due dates are available by clicking on the **Calendar** button once you have logged in to the online classroom.

Chapter	MATH 073 Assignments
	<b>Unit 1 Polynomials and Polynomial Functions</b> Review of the last unit of Math 072.
	<b>Unit 1 Pre-test</b>
4.1	Introduction to polynomials and polynomial functions
4.2	Multiplication of polynomials
4.3	Introduction to factoring
4.4	Factoring trinomials: $x^2 + bx + c$
	Mid-Chapter Review
4.5	Factoring trinomials: $ax^2 + bx + c, a \neq 1$
4.6	Special factoring
4.7	Factoring: a general strategy
4.8	Applications of polynomial equations and functions
	Chapter Review
	<b>Unit 1 Post-test</b>
	<b>Unit 1 Final</b>
	<b>Unit 2–Rational Expressions, Equations, &amp; Functions</b>
	<b>Unit 2 Pre-test</b>
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
	Mid-Chapter Review
5.5	Solving rational equations
5.6	Applications and proportions (omit section b)
5.7	Formulas and applications
5.8	Variation and applications
	Chapter Review
	<b>Unit 2 Post-test</b>
	<b>Unit 2 Final</b>
	<b>Unit 3 Radical Expressions, Equations, &amp; Functions</b>
	<b>Unit 3 Pre-test</b>
6.1	Radical expressions and functions
6.2	Rational numbers as exponents
6.3	Simplifying radical expressions
6.4	Addition, subtraction, and more multiplication
	Mid-Chapter Review
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
	Chapter Review
	<b>Unit 3 Post-test</b>
	<b>Unit 3 Final</b>

Text	MATH 073 Assignments
	<b>Unit 4 – Quadratic Equations and Functions</b>
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
	Mid-Chapter Review
7.5	Graphing $f(x) = a(x - h)^2 + k$
7.6	Graphing $f(x) = ax^2 + bx + c$
7.7a	Mathematical modeling with quadratic functions
	Chapter Review
	<b>Unit 4 Post-test</b>
	<b>Unit 4 Final</b>
	<b>*Unit 5 – Trigonometry (located in different online classroom)</b>
	<b>Unit 5 Pre-test</b>
6.1	Trigonometric functions of acute angles
6.2	Applications of right triangles
6.3	Trigonometric functions of any angle
	Mid-Chapter Review
8.1	The law of sines
8.2	The law of cosines
	Chapter Review
	<b>Unit 5 Post-test</b>
	<b>Unit 5 Final</b>
	<b>Final Exam</b>
	<b>MATH 073 Final Pre-test</b>
	<b>MATH 073 Final Post-test</b>
	<b>MATH 073 Final Exam</b>

\*Contact your instructor for information on how to access the trigonometry online classroom.

## LEARNING SUPPORT AND SERVICES FOR STUDENTS

In addition to the instructor, there are a variety of resources and services available for students to assist them throughout their learning. For more information on the college Math Help Centres, see <http://camosun.ca/learn/programs/math/labs.html>. There is also information 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>