



School of Access
Community Learning Partnerships

Mathematics 053 D19 **Intermediate Mathematics 2** Course Outline

This course outline is available online at <http://faculty.camosun.ca/martinbuck/courses/>

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

Calendar Description

See the Mathematics Course Descriptions and Prerequisites at <http://camosun.ca/learn/calendar/2011/web/math.html>

Course Requirements:

- a) An Access Code for our online classroom based on *Developmental Mathematics*, 6th or 7th edition, Marvin Bittinger & Judith Beecher. This access code is available for purchase online at the publisher's website -- <http://mathxl.com>.
NOTE: The Access Code also provides access to a plethora of textbook publisher online resources including animations, videos, podcasts and digital pages of the textbook. A hard copy of the text book is optional.
- b) Unrestricted access to an Internet connected computer. See Computer System Requirements at <http://mathxl.com/support/system.htm>.
- c) Scientific calculator. If you're headed for higher levels of math, the Sharp EL 531W model is the only calculator allowed for math department courses at Camosun.

NOTE: More details on the MathXL registration process are available at <http://faculty.camosun.ca/martinbuck/gaining-access/>

Important Dates

See <http://camosun.ca/learn/calendar/current/important-dates.html>

Instructor Information

Instructor -- Martin Buck

- a) Office hours: 24 hours a day and seven days a week. See the contact info below. Expect a response within one school day. Skype and phone appointments with the instructor are also available by prior arrangement.
- b) Location: The online classroom is located at <http://mathxl.com>.
- c) Instructor's website: <http://faculty.camosun.ca/martinbuck>
Students are invited to join my math circle at Google + by clicking on this link <https://plus.google.com/i/1k-fvVjrv38:mjHUmLBAeN0>
- d) E-mail: martin@lwebs.ca
Skype: [mbuck_skype](#)

Course Information

This mastery learning and fixed paced course is designed to be completed in one term or less. Depending on your beginning level of math skills, motivation, learning rate, and how much time you can actually devote to learning math; you may be able to complete more than one level per term.

Your first task is to ensure your browser is properly configured. Click on the [Browser Check](#) button and follow the instructions there. Then click on the [How to Enter Answers](#) link for information about entering math notation. Then log into <http://mathxl.com>.

The course homepage will list the assignments due next. The **Calendar** button will show the whole course schedule of assignment due dates. Plan on completing each assignment several days ahead of the due date. If you devote at least 15 – 20 hours per week to the course, you should have no problem completing in one term or less. As soon as you complete one course, I can move you on to the next. To complete each unit, follow the steps below:

- (a) Login and click on the **Homework and Tests** button. Your first assignment is the unit pre-test. NOTE: The pre-test is NOT a formal test. It's a tool to help us figure out the gaps in your math learning. Take as much time as you need. As long as you do NOT submit the pre-test, you can close it down and then return to it later. Beside each question you will see a number of tutorial buttons to help you master each question. Be sure to use these to help you master each question. You can exit out of the pre-test and return later as long as you do not hit the Submit button. Once you have submitted the pre-test, the online system will mark it and allow you to review your results.
- (b) To review your test results, click on the **Results** button. Figure out where you went wrong and why. With the unit pre-test reviewed, return to the **Homework and Tests** area. You will be assigned exercises based on your pre-test results. Move on to the Section Homework and complete the assigned homework exercises to the 100% level. If you need more practice, click on the **Study Plan** button. While there are hundreds of exercises there, the ones to focus on are those with the pencil icon beside them. You can also see a list of just the assigned exercises by clicking on the **Show What I Need to Study** button. For each question, make use of the Tutorial Buttons to help you master each question.
- (c) With all the section homework assignments successfully completed, return to the **Homework and Tests** area. Complete the Unit Post-test assignment. Like the pre-test, there is no need to complete this in one sitting. However, this review will be completed without benefit of the tutorial buttons. If you score of 80% or better, you may move right along to the Unit Final Test. Otherwise, return to the Study Plan area to complete the assigned exercises for this unit. Once you have completed the assigned Study Plan exercises, contact your instructor for permission to write the Unit Final.
- (d) Complete the unit by writing the Unit Final Test. The unit final tests must be completed in one sitting. While they are designed to be completed in less than an hour, you will have two hours. You will NOT be allowed to exit out and return later. NOTE: You will need a stable, wired (not wireless) Internet access to complete the Unit Exams. If you find you are being denied access to complete a unit exam, we will have to make arrangements for you to write in one of our math labs or other supervised (invigilated) location with stable Internet access. As long as you score 75% or better, you will be able to proceed to the next unit. If you score less than 75% you will be allowed to rewrite each Unit Test *once* (for a total of two times) to achieve mastery. Note: All test scores count towards your final grade for the course.

Repeat the above process for the remaining units. For a visual guide to how the online system works, visit http://faculty.camosun.ca/martinbuck/files/2011/07/MathXL_Visual_Learning.pdf.

NOTE: Before starting unit one, you must complete a review unit to demonstrate basic arithmetic skills. This Review Unit is not used in the calculation of your final grade. If you have difficulty with this unit, you will need to complete more extensive review. If you recently completed Math 052, you may be eligible for advanced credit for this unit. Contact your instructor for more information.

Assignments

The due dates for the pre-tests as well as the homework assignments and unit tests will be found under the **Calendar** button on the course homepage at <http://mathxl.com>. You are responsible for regularly checking the website and completing the assignments ahead of the due dates. 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 for a pre-test, a score of zero will be applied and you will be allowed to move on to the Homework Assignments. Late penalties of 10% per day will be applied to those who miss Homework Assignment, post-test and unit final test due dates. In any event the last day to submit assignments except for the final exam will be last day of instruction for the term as listed at the [college website](#).

Tips for Success

The secret to success in math is practice, practice and practice. Plan on spending 15 to 20 hours each week on your math. Do your homework every day. Work several days ahead of assignment due dates. This is a course you cannot put on the back burner. While the use of the multimedia materials of animations, podcasts and videos is optional, they can explain things in an easy to understand way. You will find links to these under the **Homework and Tests** button in the online classroom.

Grade Calculation:	Online Pre and Post-tests	15%
	Online Homework Assignments	10%
	Study Plan Exercises	10%
	*Five Unit Tests	40%
	**Final Exam	25%

* As this is a mastery-based course, the goal for each test is 75% or better. If you scored less than 75% then you will need to rewrite the test before you continue.

Note: Tests can only be rewritten once for a total of two times and all test scores are averaged to calculate a final mark.

** Based on the average of **all** final exam scores (including both passing and failing exam scores)

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
<50	F	0

Academic Policies

For information on Camosun College's academic policies including grading and academic progress, see the webpage at

<http://camosun.ca/learn/becoming/policies.html>

Assignments

See your online course for due dates.

Chapter	MATH 053 course content
	Unit R – Arithmetic Review (no calculator) (does not count towards final grade)
	Unit R Pre-test
R.2	Fraction Notation
R.3	Decimal Notation
	Unit R Post-test
	Unit R Exam (no calculator)
	Unit 1 – Real Numbers and Algebraic Expressions
	Unit 1 Pre-test
7.1	Introduction to algebra
7.2	The real numbers
7.3	Addition of real numbers
7.4	Subtraction of real numbers
7.5	Multiplication of real numbers
7.6	Division of real numbers
7.7	Properties of real numbers
7.8	Simplifying expressions; order of operations
	Summary and review
	Chapter test
	Unit 1 Post-test
	Unit 1 Exam
	Unit 2 Solving Equations and Inequalities
	Unit 2 Pre-test
8.1	Solving equations: the addition principle
8.2	Solving equations: the multiplication principle
8.3	Using the principles together
8.4	Formulas
8.5	Applications of percent
8.6	Applications and problem solving
8.7	Solving inequalities
8.8	Applications and problem solving with inequalities
	Summary and review
	Chapter test
	Unit 2 Post-test
	Unit 2 Exam
	Unit 3 Graphs of Linear Equations
	Unit 3 Pre-test
9.1	Graphs and applications
9.2	Graphing linear equations
9.3	More with graphing and intercepts
9.4	Slope and applications
9.5	Graphing using the slope and y-intercept
	Summary and review
	Unit 3 Post-test
	Unit 3 Exam

Chapter	MATH 053 course content
	Unit 4 – Polynomials: Operations
	Unit 4 Pre-test
10.1*	Integers as exponents
10.2*	Exponents and scientific notation
	* also complete supplementary exercises on exponents (#1-25)
10.3	Introduction to polynomials
10.4	Addition and subtraction of polynomials
10.5	Multiplication of polynomials
10.6	Special products
10.7	Operations with polynomials in several variables
10.8	Division of polynomials
	Summary and review
	Chapter test
	Unit 4 Post-test
	Unit 4 Exam
	Unit5 – Polynomials: Factoring
	Unit 5 Pre-test
11.1	Introduction to factoring
11.2	Factoring trinomials of the type $x^2 + bx + c$
	Summary and review
	Chapter test
	Unit 5 Post-test
	Unit 5 Exam
	Final Exam
	MATH 053 Final Pre-test
	MATH 053 Final Post-test
	MATH 053 Final Exam