



**School of Access
Community Learning Partnerships**

Math 072 D19
Advanced Mathematics 1
Winter 2013 Course Outline

This course outline is available online at <http://www.lwebs.ca/index.php/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/2012/web/math.html>

Course Requirements:

- (a) An Access Code for our online classroom based on *Intermediate Algebra*, 10th or 11th edition, Marvin Bittinger. 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. The Sharp EL 531W model is the calculator recommended by the Camosun math department.

Exit Grade: You need a grade of C+ in 072 to continue into Math 073 and most college programs.

Important Dates

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

Workload

Expect to commit to 15 to 20 hours per week to complete the course in one term. Double that to complete two courses in one term.

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://lwebs.ca>
- d) Students will receive an invitation to join my math circle at Google +
- e) 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. For details on how the online system works, review the information at <http://www.lwebs.ca/index.php/the-online-math-system/> . Currently this online section is only offered in the Fall and Winter terms. Instructions on how to gain access to the online classroom are available at <http://www.lwebs.ca/index.php/the-online-math-system/gaining-access/> . When you have logged into the course homepage, you will see a list of assignments and their due dates

Assignments

All assignments will be completed online. You are responsible for regular communication with your instructor as well as logging into the website and completing the assignments well 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 or a post-test, a score of zero will be applied, but you will be allowed to move on to the Homework Assignments. Late penalties of 10% per day will be applied to Homework Assignments as well as Unit Finals. The last day to submit assignments 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. Plan on completing at least one assignment per week day. Work several days ahead of the assignment due date so that if life intervenes, you will have bought yourself an extension.

| | | |
|---------------------------|------------------------------|-----|
| Grade Calculation: | *Online Pre and Post-tests | 10% |
| | *Online Homework Assignments | 10% |
| | Study Plan Exercises | 10% |
| | **Five Unit Tests | 20% |
| | ***Final Exam | 50% |

*The goal for each pre and post-test is 80% or better.

**If you score less than 75% on a unit test, you will need to rewrite the test before you continue.

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

***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 into Math 073 or your chosen program, then you need to repeat Math 072.

Standard Grading System (GPA)

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

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 Important Dates link above 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: 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.

Assignments

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 under invigilated or supervised conditions either on campus or 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. Click on the **Calendar** button for a list of all assignments and their due dates.

| Chapter | MATH 072 course content |
|---------|--|
| | Unit R – Review of Basic Algebra No Calculator (does not count towards final grade) |
| | Unit 0 (Review) Pre-test |
| R.1 | The set of real numbers |
| R.2 | Operations with real numbers |
| R.3 | Exponential notation and order of operations |
| R.4 | Introduction to algebraic expressions |
| R.5 | Equivalent algebraic expressions |
| R.6 | Simplifying algebraic expressions |
| R.7 | Properties of exponents and scientific notation |
| | Chapter Review |
| | Unit 0 (Review) Post-test |
| | Unit 0 Final |
| | |
| | Unit 1 Solving Linear Equations and Inequalities |
| | Unit 1 Pre-test |
| 1.1 | Solving equations |
| 1.2 | Formulas and applications |
| 1.3 | Applications and problem solving |
| | Mid-Chapter Review |
| 1.4 | Sets, inequalities, and interval notation |
| 1.5 | Intersections, unions, and compound inequalities |
| 1.6a-d | Absolute-value equations |
| | Chapter Review |
| | Unit 1 Post-test |
| | Unit 1 Final |
| | |
| | Unit 2 Graphs, Functions, and Applications No Calculator |
| | Unit 2 Pre-test |
| 2.1 | Graphs of equations |
| 2.2 | Functions and graphs |
| 2.3 | Finding domain and range |
| | Mid-Chapter Review |
| 2.4 | Linear functions: graphs and slope |
| 2.5 | More on graphing linear equations |
| 2.6 | Finding equations of lines; applications |
| | Chapter Review |
| | Unit 2 Post-test |
| | Unit 2 Final |

| Chapter | MATH 072 course content |
|---------|--|
| | Unit 3 Systems of Equations |
| | Unit 3 Pre-test |
| 3.1 | Systems of equations in two variables |
| 3.2 | Solving by substitution |
| 3.3 | Solving by elimination |
| 3.4a | Solving applied problems: two equations |
| | Mid-Chapter Review |
| 3.7ab | Inequalities in two variables |
| | Chapter Review |
| | Unit 3 Post-test |
| | Unit 3 Final |
| | |
| | Unit 4 Polynomials and Polynomial Functions |
| | Unit 4 Pre-test |
| 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 |
| | Chapter Review |
| | Unit 4 Post-test |
| | Unit 4 Final |
| | |
| | Unit 5 Rational Exponents |
| | Unit 5 Pre-test |
| 6.1 | Radical expressions and functions |
| 6.2 | Multiplication of polynomials |
| | Chapter Review |
| | Unit 5 Post-test |
| | Unit 5 Final |
| | |
| | MATH 072 Final Pre-test |
| | MATH 072 Final Post-test |
| | MATH 072 Final Exam |

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>