

# Mathematics 075 D01 Career Algebra Winter 2021

## **Instructor Information and Important Dates**

Instructor:	Gemma Cuizon
E-mail:	<u>cuizon@camosun.bc.ca</u>
Website:	https://online.camosun.ca/d2l/home
Schedule:	

Time	Monday	Tuesday	Wednesday	Thursday	Friday
12:30 pm - 1:30 pm		Math 075		Math 075	
1:30 pm - 2:20 pm		D01		D01	
2:30 pm - 3:20 pm		Office Hours (Math 075)		Office Hours (Math 075)	
3:30 pm - 4:20 pm					
4:30 pm - 5:20 pm	Office Hours (Math 072/073 DS01)	Office Hours (Math 072/073 DS02)	Office Hours (Math 072/073 DS01)	Office Hours (Math 072/073 DS02)	
5:30 pm - 6:30 pm	Math 072 DS01	Math 072 DS02	Math 072 DS01	Math 072 DS02	
6:30 pm - 7:30 pm	Math 073 DS01	Math 073 DS02	Math 073 DS01	Math 073 DS02	

#### **Important Dates:**

- Jan 12 First day of classes
- Jan 22 Drop with Tuition Fee Deadline (Winter '21)
- Feb 15 Family Day College is closed
- Feb 16-19 Reading Break
- Feb 16 College Conversations Day College Closed as of 12 noon
- Mar 16 Last day to drop or change to audit without penalty
- Apr 2 Good Friday College is closed
- Apr 5 Easter Monday College is closed
- Apr 14 Last day of instruction
- Apr 19-27 Final Exam Period (No exam on a Sunday, Apr. 25)

# Short Description

(Brief statement of the purpose and description of the course. If any changes are made to this part, the Learning Outcomes may also need to be changed. Max of <u>100</u> words.)

Students will obtain fundamental algebra and graphical skills necessary for entry into business programs, the criminal justice program, and elementary statistics courses. Topics include a brief review of fractions, decimals, percentages and signed numbers; solving linear equations and inequalities in one variable; graphing linear equations and inequalities in two variables; function notation; systems of linear equations; integer and rational exponents; and fundamental statistical concepts.

Check the box below if university transfer status via BCCAT is intended and should be included in the Calendar Description:  $\square$  *"To find out where this course transfers, check the BC Transfer Guide at <u>http://bctransferguide.ca/search/abe</u>]* 

# **Intended Learning Outcomes**

The learning outcomes of this course meet the required learning outcomes in ABE Mathematics: Advanced Level (Business) as outlined in the BC ABE Articulation Handbook 2018/19 Edition. https://www.bccat.ca/pubs/2018-19%20ABE%20Articulation%20Guide.pdf

Upon successful completion of this course, a student will be able to:

- 1. Demonstrate basic numeracy operations with real numbers to be able to perform arithmetic with and without using a calculator. It is expected that learners will be able to:
  - a. Add, subtract, multiply and divide rational numbers,
  - b. Evaluate powers with rational bases and integer exponents,
  - c. Demonstrate the order of operations with rational numbers,
  - d. Evaluate radicals and distinguish between exact answers and approximate answers,
  - e. Write numbers in scientific notation, convert from scientific notation to standard notation, and multiply and divide numbers expressed in scientific notation, and
  - f. Use a scientific calculator.
- 2. Demonstrate the ability to work with and apply first degree equations and inequalities in a single variable. It is expected that learners will be able to:
  - a. Solve first degree equations, in one variable, including those in parentheses,
  - b. Solve formulas for a given variable,
  - c. Solve first degree inequalities in one variable, and
  - d. Solve practical problems using a first degree equation.
- 3. Demonstrate an understanding of single variable function equations and their planar graphs, and relate the visual and algebraic expressions. It is expected that learners will be able to:
  - a. Plot points on a coordinate system,
  - b. Use number pairs to name points on the coordinate system,
  - c. Determine whether a given point is a solution to an equation in two variables, and
  - d. Create an appropriate table of values and recognize the graph of linear and quadratic functions.
- 4. Develop fundamental skills in data analysis. It is expected that learners will be able to:
  - a. Determine the mean, median, mode and range from a set of data,
  - b. Interpret and/or construct frequency tables, broken line graphs, bar graphs, and stem-plots from a set of data,
  - c. Design a statistical experiment, collect the data, analyze and communicate the results,
  - d. Find quartiles and the percentile represented by a given data value,

- e. Calculate the standard deviation of a set of data using appropriate technology, and
- f. Use z-scores to analyze normally distributed data.
- 5. Use systems of two equations to solve linear problems in two variables. It is expected that learners will be able to:
  - a. Solve systems of linear equations in two variables graphically and /or algebraically,
  - b. Graph linear inequalities in two variables,
  - c. Solve graphically, systems of linear inequalities, and
  - d. Solve practical problems.

#### **Required Materials**

- a) Openstax Intermediate Algebra
- **b)** Calculators allowed on tests and the final exams are the Sharp EL-531 scientific calculator and the Texas Instruments BA II.

## **Exit Grade**

A grade of C+ (65%) or better is needed for Business Programs at Interurban, Math 142, 143 or 109. A grade of C or better is needed for Math 116 or 077.

## Mathlabs Bookings and Help Centres:

In order to get help with Math or Statistics from an Instructional Assistant, you can send an email to an Instructional Assistant with a picture of the question that you need help with or you can type in the question into an email. The email addresses of the Instructional Assistants are available at <a href="http://camosun.ca/services/help-centres/math-help.html">http://camosun.ca/services/help-centres/math-help.html</a>

You can also book a 30 minute online appointment with an Instructional Assistant for Math or Statistics help using Microsoft Teams at Math Labs & Help Centers Booking.

To book an appointment, you will need to:

- 1) Select whether you are taking Math 072 and up, Math 021-115, or Trades Programs Math.
- 2) Select the date you would like to book an appointment on.
- 3) Optionally select the staff member you would like to book an appointment with.
- 4) Select the time that you would like to book an appointment at.

5) Type in your name and email address and optionally type in your phone number, address, and notes for any special requests that you have.

- 6) Type in your Camosun ID and the Course Name and Level that you would like help with.
- 7) Click on the Book button at the bottom of the page to schedule your appointment.

### **Tentative Term Test and Homework Dates**

Homework 1	Feb 4, 2021
Term Test 1	Feb 11, 2021
Homework 2	Mar 16, 2021
Term Test 2	Mar 23, 2021
Homework 3	Apr 6, 2021
Term Test 3	Apr 13, 2021

### Basis of Student Assessment (Weighting)

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

Homework	15% of total
Term Tests	45% of total
Final Exam	40%

The **final exam** will cover the entire course and will be at most 3 hours long. Students are expected to write tests and final exam at the scheduled time. Exceptions will only be considered due to **emergency circumstances** as considered to be emergencies. The final exam schedule is generally posted in Camlink.

#### Assignments

There will be three homework assignments which you will do and submit online in D2L. You will be given a week or more to work on an assignment. You will submit assignments on the dates mentioned above at 8:00 pm. Assignment solutions will be posted on D2L the next day from the respective dates mentioned above. Each assignment is worth 5% of the final mark.

#### **Term Tests**

There will be three term test which will be posted on the Assignment tool in D2L. Each term test will be timed. You will be given at most two hours to work on the term test. If you have an emergency, please talk to me as soon as possible. Otherwise, you will receive a grade of 0 for any missed test.

Regardless of the reason, there will be no make-up term tests. If you miss a test due to an illness, accident, or family affliction, you should very quickly notify the instructor, and upon returning to classes, provide a written request to be excused as well as supporting documentation. In such cases, your performance on the rest of the term's work, not including the final exam, will be used to compute a numerical score for the missed term test. Each term test is worth 15% of the final mark.

### Grading System

(If any changes are made to this part, then the Approved Course description must also be changed and sent through the approval process.) (Maark with "X" in how below to show appropriate approved grading system – see last

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Standard Grading System (GPA)



Competency Based Grading System

### **College Supports, Services and Policies**

#### Immediate, Urgent or Emergency Support

If you or someone you know requires immediate, urgent or emergency support (i.e. illness, injury, thoughts of suicide, sexual assault, etc.), **SEEK HELP**. Resource contacts @ <a href="http://camosun.ca/about/mental-health/emergency.html">http://camosun.ca/about/mental-health/emergency.html</a> or <a href="http://camosun.ca/services/sexual-violence/get-support.html#urgent">http://camosun.ca/services/sexual-violence/get-support.html#urgent</a>.

#### **College Services**

Camosun offers a variety of health and academic support services, including counselling, dental, disability resource centre, help centre, learning skills, sexual violence support and education, library and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the college website at <u>http://camosun.ca/</u>.

#### **College Policies**

Camosun strives to provide clear, transparent, and easily accessible policies that exemplify the college's commitment to life-changing learning. It is the student's responsibility to become familiar with the content of College policies. Policies are available at <a href="http://camosun.ca/about/policies/">http://camosun.ca/about/policies/</a>. Education and academic policies include, but are not limited to, Academic Progress, Admission, Course, Withdrawals, Standards for Awarding Credentials, Involuntary Health and Safety Leave of Absence, Prior Learning Assessment, Medical/Compassionate Withdrawal, Sexual Violence and Misconduct, Student Ancillary Fees, Student Appeals, Student Conduct, and Student Penalties and Fines.

#### A. Grading Systems <a href="http://www.camosun.bc.ca/policies/policies.php">http://www.camosun.bc.ca/policies/policies.php</a>

#### The following two grading systems are used at Camosun College:

Percent Range	0-49	50-59	60-64	65-69	70-72	73-76	77-79	80-84	85-89	90-10
Letter Grade	F	D	С	C+	B-	В	B+	A-	Α	A+
Grade Point Equivalency	0	1	2	3	4	5	6	7	8	9

#### 1. Standard Grading System (GPA)

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## 2. Competency Based Grading System (Non-GPA)

This grading system is based on satisfactory acquisition of defined skills or successful completion of the course learning outcomes.

Grade	Description
СОМ	The student has met the goals, criteria, or competencies established for this course, practicum or field placement.
DST	The student has met and exceeded, above and beyond expectation, the goals, criteria, or competencies established for this course, practicum or field placement.
NC	The student has not met the goals, criteria or competencies established for this course, practicum or field placement.

# **B.** Temporary Grades

Temporary grades are assigned for specific circumstances and will convert to a final grade according to the grading scheme being used in the course. See Grading Policy at <a href="http://www.camosun.bc.ca/policies/E-1.5.pdf">http://www.camosun.bc.ca/policies/E-1.5.pdf</a> for information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete</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	<i>In Progress</i> : A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	<i>Compulsory Withdrawal</i> : A temporary grade assigned by a Dean when an instructor, after documenting the prescriptive strategies applied and consulting with peers, deems that a student is unsafe to self or others and must be removed from the lab, practicum, worksite, or field placement.

### **Course Content and Schedule**

Openstax						
Intermediate	Topic					
Algebra						
Unit 1						
1.1	Use the Language of Algebra					
1.2	Integers					
1.3	Fractions					
1.4	Decimals					
1.5	Properties of Real Numbers					
2.1	Use a General Strategy to Solve Linear Equation					
2.2	Use a Problem Solving Strategy					
2.3	Solve a Formula for a Specific Variable					
2.5	Solve Linear Inequalities					
5.2	Properties of Exponents and Scientific Notation					
8.1	Simplify Expressions with Roots					
Test 1						
Unit 2						
3.1	Graph Linear Equations in Two Variables					
3.2	Slope of a Line					
3.4	Graph Linear Inequalities in Two Variables					
3.5	Relations and Functions					
3.6	Graphs of Functions					
4.1	Solve Systems of Linear Equations in Two Variables					
4.2	Solve Applications with Systems of Equations					
4.3	Solve Mixture Applications with Systems of Equations					
4.7	Graphing Systems of Linear Inequalities					
Test 2						
Okanagan						
College						
Math 86						
Statistics II						
Unit 3	Statistics					
Section 1	The Uses and Abuses of Statistics					
Section 2	Introduction: Mean, Median, Mode, Range and Graphs					
Section 3	Measures of Position: Quartiles and Percentiles					
Unknown						
Resource						
	Standard Deviation					
	z-scores and normally distributed data					
Test 3						
L						