



## Welcome to Camosun College!

*Camosun College campuses are located on the traditional territories of the Lkwungen and WSÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here.*

### School of Access – Community Learning Partnerships Department

### **MATH 052 Intermediate Mathematics 1 Winter 2021**

## COURSE OUTLINE

*The Approved Course Description is available on the College website*

<http://camosun.ca/learn/calendar/current/web/math.html>

### 1. Instructor Information

**Instructor:** Ramona Scott

**Phone:** email preferred

**Office:** online – D2L

**e-mail:** ScottR@camosun.bc.ca

**Website:** <https://sites.camosun.ca/clp-math/>

### 2. Short Description

In this course students will learn practical computational and problem-solving skills required for daily life and for further study in Intermediate-level algebra. Topics: proportion, percent, graphs, statistics, measurement, geometry, and trigonometry.

### 3. Intended Learning Outcomes

(complete ABE Fundamental Mathematics learning outcomes at ABE Articulation Handbook website <https://www.bccat.ca/pubs/2018-19%20ABE%20Articulation%20Guide.pdf> )

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

1. use mathematics at an ABE Intermediate level with competence
2. demonstrate knowledge and skills in using the language, principles, and operations of consumer math (arithmetic, statistics, measurement), geometry, and trigonometry
3. apply a variety of strategies in solving math-related problems
4. apply knowledge and skills in consumer math, geometry, and trigonometry to solve problems
5. use knowledge of consumer math, geometry, and trigonometry as a basis for further study in Intermediate-level algebra and math for trades

### 4. Required Materials

- (a) textbook: *Developmental Mathematics*, Custom Edition for Camosun College, Marvin Bittinger/Judith Beecher (Content taken from the 9<sup>th</sup> Edition of *Developmental Mathematics* by the same authors)
- (b) module: *Trigonometry* (ABE Intermediate Mathematics module 14), British Columbia
- (c) scientific calculator (Sharp EL-531X or EL-531W for next level MATH 072 or 135)

#### Supplementary Materials

- (a) math 052 materials can be found here: <https://sites.camosun.ca/acf-math/math-052/>
- (b) *Student's Solutions Manual*, Judith Penna  
(for sale in the bookstore; available for reference in the classroom)
- (c) *Instructor's Solutions Manual*, Judith Penna (for reference in the classroom)
- (d) website [www.mymathlab.com](http://www.mymathlab.com) (online text, tutorials, videos, and testing)

## 5. Course Schedule, Content and Instructions

The course completion time will vary for each student, depending on a number of factors, including your current level of math skills, motivation, learning rate, and how much time you have to study math, either at the college or at home. Students generally need to spend 5–15 hours of study time per week to complete each math course within 4 months.

### Note:

- students must pass a competency test to demonstrate that they can add, subtract, multiply, and divide whole numbers, fractions, and decimals without the use of a calculator – if necessary, use the Arithmetic Review booklet to review these operations before writing the competency test
- for each section of the 052 text listed in the table below, read the explanations, study the Examples, do the Margin Exercises, and then work through and check all or at least some of the more difficult odd-numbered problems in the Exercise Set
- note that unit 3 is covered by Appendixes A–D at the back of the text, and unit 5 is covered by the supplementary module entitled *Trigonometry*
- to prepare for the final test for each unit, do the Summary and Review Exercises and write the Chapter Test at the end of the chapter, and correct all of your errors
- review your final test results with the instructor, and proceed to the next unit if you score 75% or better, or rewrite the final test if you score less than 75% (all test scores count)

9 <sup>th</sup> & 8 <sup>th</sup> ed.	MATH 052 course content	
	<b>Unit R – Arithmetic Review (no calculator)</b>	
R.1	Place value	
R.2	Comparing numbers	
R.3	Rounding numbers	
R.4	Adding and subtracting whole numbers and decimals	
R.5	Multiplying whole numbers and decimals	
R.6	Dividing whole numbers and decimals	
R.7	Order of operations	
R.8	Operations with fractions	
R.9	Equivalent fractions	
R.10	Adding and subtracting fractions	
R.11	Multiplying fractions	
R.12	Dividing fractions	
R.13	Converting fractions and decimals	
R.14	Estimation	
	Practice Test	
	Unit R final test (no calculator)	
	<b>Unit 1 – Percent Notation</b> (for 4-month completion: 25 days)	
4.1	Ratio and proportion	
4.2	Percent notation	
4.3	Percent and fraction notation	
4.4	Solving percent problems using percent equations	
4.5	Solving percent problems using proportions	
4.6	Applications of percent	
4.7	Sales tax, commission, discount, and interest	
4.8	Simple interest and compound interest; credit cards	
	Interest rates on credit cards and loans	
	Summary and review	
	Chapter test	
	Unit 1 final test	
	<b>Unit 2 – Data, Graphs, and Statistics</b> (15 days)	
5.1	Averages, medians, and modes	
5.2	Tables and pictographs	

5.3	Bar graphs and line graphs	
5.4	Circle graphs	
	Summary and review	
	Chapter test	
	Unit 2 final test	
<b>9<sup>th</sup> &amp; 8<sup>th</sup> ed. MATH 052 course content</b>		
	<b>Unit 3 – Measurement</b>	(15 days)
A*	Linear measures: American units and metric units (*Appendixes)	
B*	Weight and mass; medical applications	
C*	Capacity; medical applications	
D*	Time and temperature	
	Summary and review	
	Unit 3 final test	
	<b>Unit 4 – Geometry</b>	(20 days)
6.2	Perimeter	
6.3	Area	
6.4	Circles	
6.5	Volume and surface area	
6.8	Similar triangles	
	Summary and review	
	Chapter test	
	Unit 4 final test	
	<b>Unit 5 – Trigonometry</b> (supplementary module)	(25 days)
5.1	The right triangle	
5.2	Angles and sides	
5.3	The Pythagorean theorem (more in 7e text p 1059, 8e tx p 1087)	
5.4	The tangent ratio	
5.5	Using the tangent ratio	
5.6	The sine and cosine ratios	
5.7	Solving triangles	
	Practice test	
	Unit 5 final test	
	MATH 052 review	
	MATH 052 final exam	day 105

## 6. Basis of Student Assessment

- (a) **Tests** 75% of the course grade is based on the average of **all** unit final test scores for units 1–5 (including both passing and failing test scores)
- (b) **Exams** 25% of the course grade is based on the average of **all** final exam scores (including both passing and failing exam scores)

**Note:** Students with a record of poor attendance OR poor progress may be restricted from re-registering in Academic and Career Foundations Department courses.

## 7. Grading System

- Letter Grades  
 Competency Based

Refer to Grading Policy (at <http://www.camosun.bc.ca/policies/policies.php> or the College Calendar) for specific information regarding these systems)

## 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 <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf> for information on conversion to final grades, and for additional information on student record and transcript notations.

## 8. Learning Support and Services for Students

### ACADEMIC UPGRADING HELP CENTRE (CBA 109 or Ewing 342)

<http://camosun.ca/services/help-centres/math.html>

Help with coursework, reference & learning materials library, computers & printers, quiet testing & study areas

## 9. College Supports, Services and Policies



### Immediate, Urgent, or Emergency Support

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

### 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 & education, library, and writing centre. For more information on each of these services, visit the **STUDENT SERVICES** link on the College website at <http://camosun.ca/services/>

### 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 on the College website at <http://camosun.ca/about/policies/>. 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.