#### Welcome to Camosun College!



Camosun College campuses are located on the traditional territories of the Lkwungen and  $\underline{W}$  SÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here.

# School of Access – Community Learning Partnerships Department

MATH 038 Math for General Trades

Celaset

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**: 250-634-2504

Office Hours: By appointment - email or text

e-mail: scottr@camosun.bc.ca

### 2. Short Description

Students in this course will complete a brief trades-oriented review of the basic computational and problemsolving skills required for further study in various Trades Foundation programs. Topics: whole numbers, fractions, decimals, proportion, percent, powers, roots, graphs, formulas, measurement, and geometry.

### 3. Intended Learning Outcomes

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

- 1) demonstrate knowledge and skills in using the principles and operations of foundational mathematics topics such as arithmetic, measurement, and geometry
- 2) apply a variety of strategies in solving math-related problems
- 3) apply knowledge and skills in foundational math topics to solve trades-related problems
- 4) use knowledge of foundational math as a basis for further study in various Trades Foundation programs and in more advanced math courses

### 4. Required Materials

- Textbook: Line B, Solve Mathematical Problems, Trades Common Core
- Scientific calculator recommended: Sharp EL 531W Supplemental Materials
- optional supplementary materials from MATH 023-026 ٠
- additional math 038 materials can be found here: https://sites.camosun.ca/acf-math/math-2/ •

### 5. Course Instructions and Content

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 work on this course. Students generally need to spend 5–15 hours of study time per week, either at the college or at home, to complete a math course within 4 months.

The table below lists the eleven competencies or chapters in the Line B text that are required for each Trades Foundation Program (except Professional Cook and Electrical), which will be taught after completing the Arithmetic Review booklet.

To prepare for the Final Test, write the Practice Test and review your results with the instructor.

| MATH 038 course content                           |      |                                       |                          |            |  |
|---|------|---------------------------------------|--------------------------|------------|--|
| Unit R - Arithmetic Review (no calculator)        |      | Math 038 course content               | Line B                   | Question   |  |
|   |      | Competency B-4 – Metric and           | l Imperial Me            | asurements |  |
| Place value                                       | R.1  |                                       | 46                       | 1-2        |  |
| Comparing numbers                                 | R.2  |                                       | 49                       | 1-6        |  |
| Rounding numbers                                  | R.3  |                                       | 43                       | 1-2        |  |
| Adding and subtracting whole numbers and decimals | R.4  |                                       | 50                       | 1-2        |  |
|   |      | Competency B-5 – Ratio and Proportion |                          |            |  |
| Aultiplying whole numbers and                     | R.5  |                                       | 59                       | 1-12       |  |
| decimals  |      |                                       | 55                       | 1–10       |  |
| Powers - repeated multiplication                  | R.6  | 1                                     | 62                       | 1-10       |  |
| Dividing whole numbers and<br>lecimals            | R.7  |                                       |                          |            |  |
| Order of operations                               | R.8  |                                       |                          |            |  |
| Operations with fractions                         | R.9  | Competency B-6                        | Competency B-6 – Percent |            |  |
| Equivalent fractions                              | R.10 |                                       | 69                       | 1-4        |  |
| Adding and subtracting fractions                  | R.11 |                                       | 73                       | 1-4        |  |
| Aultiplying fractions                             | R.12 |                                       | 67                       | 1-5        |  |
| Vividing fractions                                | R.13 |                                       | 74                       | 1-5        |  |
|   |      | Competency B-7 – Powers and Roots     |                          |            |  |
| Converting fractions and                          | R.14 |                                       |                          |            |  |
| decimals  |      |                                       | 82                       | 1          |  |
| Estimation  | R.15 |                                       | 84                       | 1          |  |
|   |      |                                       | 79                       | 1-3        |  |

| Practice Test                     |                  |               |  |  |
|-----------------------------------|------------------|---------------|--|--|
|                                   |                  |               |  |  |
| Unit R final test (no calculator) | 1                |               |  |  |
|                                   |                  |               |  |  |
|                                   |                  |               |  |  |
| MATH 038 course content           | Line B<br>page # | question<br># |  |  |
|                                   |                  |               |  |  |
| Competency B-1 – Wh               | ole Numbei       | rs.           |  |  |
| competency b 1 mi                 |                  | 5             |  |  |
|                                   | 5                | 1-4           |  |  |
|                                   | 3                | 1–5           |  |  |
|                                   | 7                | 1-5           |  |  |
| Competency B-2 – Fractions        |                  |               |  |  |
|                                   | 15               | 1-4           |  |  |
|                                   | 17               | 1-4           |  |  |
|                                   | 20               | 1-4           |  |  |
|                                   | 21               | 1-5           |  |  |
|                                   | 11               | 1–20          |  |  |
|                                   | 23               | 1-15          |  |  |
| Competency B-3 – Decimals         |                  |               |  |  |
|                                   | 32               | 1-2           |  |  |
|                                   | 33               | 1-2           |  |  |
|                                   | 37               | 1-5           |  |  |
|                                   | 29               | 1-10          |  |  |
|                                   | 38               | 1-15          |  |  |
|                                   |                  |               |  |  |

|                             | 85             | 1-3       |
|-----------------------------|----------------|-----------|
|                             |                |           |
| Competency B-8              | – Graphs       |           |
| competency b c              | 93             | 1-5       |
|                             |                |           |
|                             |                |           |
|                             | 96             | 1-2       |
|                             | 89             | 1-5       |
|                             |                |           |
|                             | 98             | A-E       |
| Competency B-9 –            | Formulas       |           |
|                             |                |           |
|                             | 111            | 1-5       |
|                             |                |           |
|                             | 105            | 1-7       |
|                             |                |           |
|                             | 115            | 1-5       |
|                             |                |           |
| Competency B-10 – Perimeter | rs, Areas, and | d Volumes |
|                             | 125            | 1-8       |
|                             |                |           |
|                             | 121            | 1-8       |
|                             |                |           |
|                             | 129            | 1-8       |
|                             |                |           |
| Competency B-11 – Ang       | les and Trian  | ngles     |
|                             |                |           |
|                             | 142            | 1-4       |
|                             |                |           |
|                             | 135            | 1_6       |
|                             | 155            | 10        |
|                             | 151            | 1-6       |
|                             |                |           |
| MATH 038 Practice Test      |                |           |
|                             |                |           |
| MATH 038 Final Test         |                |           |
|                             |                |           |
|                             | I              |           |

### 6. Basis of Student Assessment

The course grade is either COM (complete) or IP (in progress) or NC (not complete), and is based on the student's score on the Final Test, which covers all of the required units (passing score 75%).

**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 <u>http://www.camosun.bc.ca/policies/policies.php</u> 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 <a href="http://camosun.ca/about/policies/educationacademic/e-1-programming-and-instruction/e-1.5.pdf">http://camosun.ca/about/policies/educationacademic/e-1-programming-and-instruction/e-1.5.pdf</a> 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 (Online meetings)

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 @ <u>http://camosun.ca/about/mentalhealth/emergency.html</u> or <u>http://camosun.ca/services/sexual-violence/</u>

### **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 <a href="http://camosun.ca/services/">http://camosun.ca/services/</a>

#### 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 <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.