



*School of Access  
Academic and Career Foundations Department*

**MATH 037 Math for Professional Cook**

**COURSE OUTLINE**

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

[http://camosun.ca/learn/programs/academic-upgrading/what-youll-learn/upgrading.html#tabs-fundamental\\_a](http://camosun.ca/learn/programs/academic-upgrading/what-youll-learn/upgrading.html#tabs-fundamental_a)

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### 1. Instructor Information

**Instructor:** Mark Jackson  
**Office:** Ewing 316

**Phone:** N/A  
**e-mail:** [JacksonM@camosun.bc.ca](mailto:JacksonM@camosun.bc.ca)

### 2. Intended Learning Outcomes

At the end of the course, students will be able to:

1. Demonstrate knowledge and skills in using the principles and operations of arithmetic and measurement
2. Apply a variety of strategies in solving math-related problems
3. Apply knowledge and skills in arithmetic and measurement to solve problems related to the Professional Cook Foundations Program
4. Use knowledge of arithmetic, measurement, and applied problems as a basis for further study in the Professional Cook Foundations Program

### 3. Required Materials

- *Unit R Arithmetic Review* booklet
- *Applied Math Problems for the Professional Cook Program* booklet
- Scientific calculator
- Optional supplementary materials from MATH 023–026
- Optional textbook - *Line B, Solve Mathematical Problems, Trades Common Core*

### 4. 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.

Before starting the *Applied Math Problems for the Professional Cook Program* booklet, 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 (Unit R) to review these operations before writing the competency test

The table below lists the eight competencies or sections in the Professional Cook Applied Problems booklet that are required for the Professional Cook Foundations Program. Follow these steps to complete each competency:

1. Answer and check all questions in the Professional Cook Applied Problems booklet in the order listed in the table below
2. Study the worked solutions sections of the booklet
3. Ask the instructor for help whenever you need it

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

<b>MATH 037 course content</b>		
<b>Unit R - Arithmetic Review (no calculator)</b> <b>[This is a Separate Booklet]</b>		
Place value	R.1	
Comparing numbers	R.2	
Rounding numbers	R.3	
Adding and subtracting whole numbers and decimals	R.4	
Multiplying whole numbers and decimals	R.5	
Powers - repeated multiplication	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	R.15	
Practice Test		
Unit R final test (no calculator)		

<b>MATH 037 course content</b>	<b>Section</b>	<b>Page</b>
Professional Cook Applied Problems Booklet <b>[This is a Separate Booklet] Calculator permitted.</b>		
<b>Applied Problems Topic 1– Whole Numbers</b>		
Problems	1	1-3
Solutions	1	4-6
<b>Applied Problems Topic 2– Fractions</b>		
Problems	2	7-8
Solutions	2	9-11
<b>Applied Problems Topic 3– Decimals</b>		
Problems	32	12-14
Solutions	33	15-17
<b>Applied Problems Topic 4 Metric and Imperial Measurements</b>		
Problems	4	18-20
Solutions	4	21-24
<b>Applied Problems Topic 5 – Ratio and Proportion</b>		
Problems	5	25-27
Solutions	5	28-30
<b>Applied Problems Topic 6 – Percent</b>		
Problems	6	31-33
Solutions	6	34-36
<b>Applied Problems Topic 7 Food Cost Percentage and Yield</b>		
Problems	7	37-40
Solutions	7	41-45
<b>Applied Problems Topic 8 – EP &amp; AP</b>		
Problems	8	46-47
Solutions	8	48-49
MATH 037 Practice Test		
MATH 037 Final Test		

## 5. Basis of Student Assessment (Weighting)

The MATH 023 course grade is based on the average of all unit Final Test passing 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.

## 6. Grading System

A+	90–100%	B+	77–79%	C+	65–69%
A	85–89%	B	73–76%	C	60–64%
A–	80–84%	B–	70–72%	IP	in progress

## 7. Learning Support and Services for Students

### ACADEMIC UPGRADING HELP CENTRE (CBA 109)

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

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

There are many other Camosun services available to help you succeed in and out of the classroom, including education planning, learning and personal support, campus life, work and housing, and getting around. This information is available at Registration or the College web site <http://camosun.ca/services/>

## 8. 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/get-support.html#urgent>

### 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/>

### 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.

### A. GRADING SYSTEMS <http://www.camosun.bc.ca/policies/policies.php>

The following two grading systems are used at Camosun College:

#### 1. 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
0-49	F	Minimum level has not been achieved.	0

## 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
COM	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 <http://www.camosun.bc.ca/policies/E-1.5.pdf> 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.

## 9. MATH 038 Essential Skills (based on learning outcomes, coursework and classroom interaction)

**Numeracy:** numerical calculation and measurement (arithmetic, metric and imperial measurement, graphs, formulas, geometry)

- Convert between fractions, decimals, and percent
- Add, subtract, multiply and divide rational numbers
- Solve application problems involving arithmetic, metric and imperial measurement, graphs, formulas, and geometry
- Use order of operations
- Use the common metric and imperial units for temperature, length, volume and mass
- Convert between and within metric and imperial units using tables and/or calculators

- Use formulas to solve related application problems
- Read, write, and use ratios and proportions to solve percent and other application problems
- Distinguish between significant digits, accuracy, and precision
- Use a calculator to find squares, cubes, square roots, and cubic roots of whole numbers, fractions, and decimals
- Extract and interpret information from line, bar and circle graphs
- Draw line and bar graphs
- Solve equations, formulas, and related application problems
- Use a protractor, compass and straightedge to measure angles, bisect lines, angles and arcs, find the centre of a circle and construct a perpendicular to a line
- Use the Pythagorean theorem and properties of triangles to find missing sides and angles of triangles

#### **Reading**

- Scan for key information
- Read and correctly follow written directions
- Read a full text to understand, learn or evaluate
- Integrate and synthesize information from multiple sources
- Refer to appropriate written (hardcopy or online) resources when experiencing difficulty

#### **Document Use**

- Interpret information in graphs or charts
- Use a table of contents or index to find specific information

#### **Writing**

- Organize, record and document
- Write notes in point form

#### **Oral Communication**

- Follow oral instructions and explanations
- Seek or obtain information from peers and instructor

#### **Working with Others**

- Work independently alongside others
- Use appropriate and respectful communication with peers and others
- Receive and apply relevant feedback

#### **Thinking Skills**

- Apply prior learning to facilitate effective study and to integrate information from a text with background knowledge from outside the text
- Identify learning strengths
- Identify and set short and long term goals
- Maintain a personalized learning plan within an individualized educational setting
- Identify key facts and issues related to a problem
- Apply a variety of strategies in solving math-related problems
- Check that answers and solutions to problems are reasonable
- Build strategies for successfully writing math tests
- Prioritize tasks
- Use tools (calendars, agendas, checklists) to help organize tasks and for time management
- Identify, compare, contrast and critically evaluate multiple pieces of information while reading, listening and/or viewing

#### **Digital Technology**

- Use a scientific calculator
- May use online tools to communicate and to learn and practice mathematical skills

#### **Continuous Learning**

- Deepen understanding of skill strengths and areas in need of improvement
- Recognize preferred learning styles (learning by seeing, hearing or doing)
- Try new ways of doing things
- Continue studies in Foundations Level Trades Programs (except Electrical)