School of Access
Academic and Career Foundations Department

MATH 038 Math for General Trades
Fall 2018; Section S08 (2018/09/04 - - 2018/12/14)

COURSE OUTLINE

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

1. Instructor Information

(a) Instructor: Augustin Rusekampunzi _____

(b) Office hours:0900-0930; 1230-1530 (M&W) **CBA109**;1600-1700(T&Th) **E218**

(c) Help Centre hours: 1130 – 1230(M ,T, W, Th) **CBA 109** _____

(d) Location: CBA 106 _____

(e) Phone: 2503704489 Alternative: 2508889057(Text Only)

(f) E-mail: ruse@camosun.bc.ca _____

(g) Website N/A _____

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 various math topics such as arithmetic, measurement, graphs, formulas, and geometry

2) Apply a variety of strategies in solving math-related problems

3) Apply knowledge and skills in various math topics to solve problems related to particular Trades Foundation Programs (except Professional Cook and Electrical programs)

4) Use knowledge of various math topics as a basis for further study in Trades Foundation Programs (entry level)

3. Required Materials

- textbook: *Line B, Solve Mathematical Problems, Trades Common Core*
- scientific calculator
- optional supplementary materials from MATH 023–026

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.

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). Follow these steps to complete each competency:

- skip the Pre-Test
- study the explanations and examples
- answer and check **ALL** questions in the order listed in the table below
- 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.

MATH 038 course content		
Unit R - Arithmetic Review (no calculator) [This is a Separate Booklet]		
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)		

MATH 038 course content	Line B page #	question #
Competency B-1 – Whole Numbers		
	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
Competency B-4 – Metric and Imperial Measurements		
	46	1-2
	49	1–6
	43	1–2
	50	1–2
Competency B-5 – Ratio and Proportion		
	59	1–12
	55	1–10
	62	1–10
Competency B-6 – Percent		
	69	1–4
	73	1–4
	67	1–5
	74	1–5
Competency B-7 – Powers and Roots		
	82	1
	84	1
	79	1–3
	85	1–3
Competency B-8 – Graphs		
	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 – Perimeters, Areas, and Volumes		
	125	1–8
	121	1–8
	129	1–8
Competency B-11 – Angles and Triangles		
	142	1–4
	135	1–6
	151	1–6
MATH 038 Practice Test		
MATH 038 Final Test		

MATH 038 course content	Line B page #	question #

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. Recommended Materials to Assist Students to Succeed Throughout the Course

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	*Incomplete*: 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	*In progress*: 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	*Compulsory Withdrawal*: 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)
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