



CAMOSUN COLLEGE
School of Access
Community Learning Partnerships Department

MATH 057-S17 Math for Electrical Trades

COURSE OUTLINE WINTER 2018

The Approved Course Description is available on the College website
http://camosun.ca/learn/programs/academic-upgrading/what-youll-learn/upgrading.html#tabs-intermediate_a

1. Instructor Information and Schedule:

Name: Pooja Gupta
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Office: CBA 149

My class schedule this term:

	Monday	Tuesday	Wednesday	Thursday	Friday
9:30 – 12:20	In class Saanich Adult Education Centre	In class Songhees Wellness Centre	In class Saanich Adult Education Centre	In class Songhees Wellness Centre	Online class (9:30 – 1:50)
12:30 – 2:20	Online class/ Office time Meetings by appointments only		Online class/ Office time Meetings by appointments only		Office time Department Meetings

Important Dates this Winter term:

- January 8 – Term Starts
- February 12 – Family Day (College closed)
- February 13 to 16 – Reading break (College closed)
- February 13 – Foundation Bursaries Deadline to apply for winter 2018
- February 23 – T2202A Education Tax Receipts available
- March 30 – Good Friday (College closed)
- April 2 – Easter Monday (College closed)
- April 13 – Last day of instruction
- April 16 to 20 – Exams
- April 20 – Term Ends

Note: - Please seek help as soon as possible so that I can help you to be successful this term. As emails are accessible from any location, I prefer **emails** to phone calls.

2. Intended Learning Outcomes

At the end of the course, students 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 introductory algebra and trigonometry
3. Apply a variety of strategies in solving math-related problems
4. Apply knowledge and skills in introductory algebra and trigonometry to solve problems
5. Use knowledge of introductory algebra and trigonometry as a basis for further study in the Electrical Foundation program, Advanced-level mathematics, and other courses and programs

3. Required Materials

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

Supplementary Materials

- e) Selected open source math videos: <https://sites.camosun.ca/acf-math/math-057/>
- f) *Student's Solutions Manual*, Judith Penna
(for sale in the bookstore; available for reference in the classroom)
- g) *Instructor's Solutions Manual*, Judith Penna (for reference in the classroom)
- h) website www.mymathlab.com (online text, tutorials, videos, and testing)

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 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.

- (a) before starting unit 1, 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
- (b) for each section of the 057 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
- (c) note that unit 4 includes text chapter 10, 11.1, & 11.2, and a supplement on exponents
- (d) to prepare for the 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
- (e) review your test results with the instructor, and proceed to the next unit if you score 75% or better, or rewrite the unit test if you score less than 75% (all test scores count)

9 th & 8 th ed.		MATH 057 course content	
	Unit R – Arithmetic Review (no calculator)		
R.1	Place value		
R.2	Comparing numbers		

10.2*	Exponents and scientific notation		
	* after 10.2, complete supplementary exercises on exponents #1–25		
10.3	Introduction to polynomials		
10.4	Addition and subtraction of polynomials		
10.5	Multiplication of polynomials		
10.6	Special products		
10.7	Operations with polynomials in several variables		
10.8a	Division of polynomials by a monomial		
11.1ab	Introduction to common factoring		
11.2	Factoring trinomials of the type $x^2 + bx + c$		
11.5cd	Factoring differences of squares		
	Summary and review		
	Chapter test		
	Unit 4 test		
	MATH 053 review and final exam	day 105	
	Unit 5 – Trigonometry (supplementary module)	(15 days)	
5.1	The right triangle		
5.2	Angles and sides		
5.3	The Pythagorean theorem (more in 7e text p 1059, 8e text 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 test		
	Unit 6 – Vectors (supplementary module)	(10 days)	
p 10	Problem Sets		
	Unit 6 test	day 130	

5. Basis of Student Assessment (Weighting)

(a) **Tests** 75% of the course grade is based on the average of **all** unit final test scores for units 1–6 (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 low attendance OR lack of progress may be restricted from re-registering in COMMUNITY Learning Partnerships 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 or Ewing 342)

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

Help with coursework, reference & learning materials library, computers & printers, 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 Policies

ACADEMIC PROGRESS

The purpose of this policy is to enhance a learner's likelihood of success, and to encourage the learner to use College resources effectively.

<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf>

GRADING

The purpose of this policy is to ensure that grading and promotion are consistent and fair.

<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>

STUDENT CONDUCT

The purpose of this policy is to provide clear expectations of appropriate academic and non-academic student conduct, and to establish processes for resolution of conduct issues or the imposition of sanctions for inappropriate conduct.

<http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf>