Welcome to Camosun College!

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

School of Access - Academic and Career Foundations Department

MATH 057 S03 Math for Electrical Trades

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: Nicolas Mai **Phone**: 250-370 – 4481
Office: Interurban: CBA 146 **Email**: mai@camosun.bc.ca

The Approved Course Description is available on the College website *http://www.camosun.ca/learn/calendar/current/*

Fall Term, September 7 – December 17, 2021

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:30	**Math S02 24/25/26/37/38/39 52/53/57 CBA 118 Nicolas Mai mai@camosun.ca**	Office CBA 146	**Math S02 24/25/26/37/38/39 52/53/57 CBA 118 Nicolas Mai mai@camosun.ca**	Office CBA 146	Office CBA 146
10:30		**Math S03 24/25/26/37/38/39 52/53/57 Portable A, rm 102 Nicolas Mai mai@camosun.ca**		**Math S03 24/25/26/37/38/39 52/53/57 Portable A, rm 102 Nicolas Mai mai@camosun.ca**	**Math S03 24/25/26/37/38/39 52/53/57 Portable A, rm 102 Nicolas Mai mai@camosun.ca**
11:20					
12:20	Office CBA 146	**Math S04 24/25/26/37/38/39 52/53/57 CBA 117 Nicolas Mai mai@camosun.ca**	Office CBA 146	**Math S04 24/25/26/37/38/39 52/53/57 CBA 117 Nicolas Mai mai@camosun.ca**	Office CBA 146
3:20					
5:00	Office CBA 146	Office CBA 146	Office CBA 146	Office CBA 146	

To arrange office meetings, please contact Nicolas at 250-370-4481 or email at mai@camsosun.bc.ca

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 ELT 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) *Unit R Arithmetic Review* booklet
(c) module: Trigonometry *(ABE Intermediate Mathematics* module 14*)*, British Columbia
(d) module: Vectors (Camosun College)
(d) scientific calculator (Sharp EL-531X or EL-531W for next level MATH 072 or 135)

Supplementary Materials

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

4. Course Content and Schedule

Self-paced 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.

(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 (calculators are not allowed for parts of MATH 072 and 172) – 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 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
(e) 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)

MATH 057 course content		
	Unit R – Arithmetic Review (no calculator)	
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)	
9th & 8th Ed	**MATH 057 course content**	
	Unit 1 – Real Numbers and Algebraic Expressions (for 4-month completion: 20 days)	
7.1	Introduction to algebra	
7.2	The real numbers	
7.3	Addition of real numbers	
7.4	Subtraction of real numbers	
7.5	Multiplication of real numbers	
7.6	Division of real numbers	
7.7	Properties of real numbers	
7.8	Simplifying expressions; order of operations	
	Summary and review	
	Chapter test	
	Unit 1 final test	
	Unit 2 – Solving Equations and Inequalities (30 days)	
8.1	Solving equations: the addition principle	
8.2	Solving equations: the multiplication principle	
8.3	Using the principles together	
8.4	Formulas	
8.5	Applications of percent	
8.6	Applications and problem solving	
8.7	Solving inequalities	
8.8	Applications and problem solving with inequalities	
	Summary and review	
	Chapter test	
	Unit 2 final test	
	Unit 3 – Graphs of Linear Equations (22 days)	
9.1	Graphs and applications of linear equations	
9.2	More with graphing and intercepts	
9.3	Slope and applications	
	Summary and review	
	Chapter test	
	Unit 3 final test	
	Unit 4 – Polynomials: Operations and Factoring (28 days)	
10.1*	Integers as exponents	
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 difference of squares	
	Summary and review	
	Chapter test	
	Unit 4 final test	

	MATH 053 review		
	MATH 053 final exam	day 105	
9th & 8th Ed	**MATH 057 course content**		
	Unit 5 – Trigonometry (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 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 final test		
	Unit 6 − Vectors (supplementary module)		
p 10	Problem Sets		
	Vectors Final Test	day 130	

5. Basis of Student Assessment

(a) **Tests**   75% of the course grade is based on the average of **all** unit final test scores for units 1−6 (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 Academic and Career Foundations Department courses.

6. Grading System – Standard Grading System http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf

A+	90–100%	B+	77–79%	C+	65–69%	D	50-59%
A	85–89%	B	73–76%	C	60–64%	F	40-49%
A−	80–84%	B−	70–72%	IP	in progress		

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.

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

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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/

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 **S T U D E N T S E R V I C E S** 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.

SUPPORTS AND SERVICES FOR STUDENTS

Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit http://camosun.ca/students/.

Support Service	Website
Academic Advising	http://camosun.ca/advising
Accessible Learning	http://camosun.ca/accessible-learning
Counselling	http://camosun.ca/counselling
Career Services	http://camosun.ca/coop
Financial Aid and Awards	http://camosun.ca/financialaid
Help Centres (Math/English/Science)	http://camosun.ca/help-centres
Indigenous Student Support	http://camosun.ca/indigenous
International Student Support	http://camosun.ca/international/
Learning Skills	http://camosun.ca/learningskills
Library	http://camosun.ca/services/library/
Office of Student Support	http://camosun.ca/oss
Ombudsperson	http://camosun.ca/ombuds
Registration	http://camosun.ca/registration
Technology Support	http://camosun.ca/its
Writing Centre	http://camosun.ca/writing-centre

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

Academic Accommodations for Students with Disabilities
The College is committed to providing appropriate and reasonable academic accommodations to students with disabilities (i.e. physical, depression, learning, etc). If you have a disability, the Centre for Accessible Learning (CAL) can help you document your needs, and where disability-related barriers to access in your courses exist, create an accommodation plan. By making a plan through CAL, you can ensure you have the appropriate academic accommodations you need without disclosing your diagnosis or condition to course instructors. Please visit the CAL website for contacts and to learn how to get started: http://camosun.ca/services/accessible-learning/

Academic Integrity
Please visit http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf for policy regarding academic expectations and details for addressing and resolving matters of academic misconduct.

Academic Progress
Please visit http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

Course Withdrawals Policy
Please visit http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.2.pdf for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit http://camosun.ca/learn/fees/#deadlines.

Grading Policy
Please visit http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf for further details about grading.

Grade Review and Appeals
Please visit http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf for policy relating to requests for review and appeal of grades.

Mandatory Attendance for First Class Meeting of Each Course
Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable reason in advance, you will be removed from the course and the space offered to the next waitlisted student. For more information, please see the "Attendance" section under "Registration Policies and Procedures" (http://camosun.ca/learn/calendar/current/procedures.html) and the Grading Policy at http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf.

Medical / Compassionate Withdrawals
Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal. Please visit

http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf to learn more about the process involved in a medical/compassionate withdrawal.

Sexual Violence and Misconduct

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun's Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. The Office of Student Support will make sure students have a safe and private place to talk and will help them understand what supports are available and their options for next steps. The Office of Student Support respects a student's right to choose what is right for them. For more information see Camosun's Sexualized Violence and Misconduct Policy: http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.9.pdf and camosun.ca/sexual-violence. To contact the Office of Student Support: oss@camosun.ca or by phone: 250-370-3046 or 250-3703841

Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College's Student Misconduct Policy at http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf to understand the College's expectations of academic integrity and student behavioural conduct.

Changes to this Syllabus: Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.