CAMOSUN COLLEGE	**School of Arts & Science** **MATHEMATICS DEPARTMENT** **MATH 174B** **MATHEMATICS FOR ELECTRONICS 2 – X01** **2013 Quarter 2**

COURSE OUTLINE

The course description is online @ http://camosun.ca/learn/calendar/current/web/math.html

Ω *Please note: the College electronically stores this outline for five (5) years only.*
*It is **strongly recommended** you keep a copy of this outline with your academic records.*
You will need this outline for any future application/s for transfer credit/s to other colleges/universities.

1. Instructor Information

(a)	Instructor:	Susie Wieler		
(b)	Office Hours:	to be posted		
(c)	Location:	CBA 147		
(d)	Phone:		Alternative Phone:	
(e)	Email:	wielers@camosun.bc.ca		
(f)	Website:	https://sites.google.com/site/susiewieler/		

2. Intended Learning Outcomes

Upon completion of this course the student will be able to:

1. Find the equation of a line tangent and normal to a curve at a point. Use Newton's Method to find an approximate solution to an equation. Solve curvilinear motion problems using equations in parametric form. Solve related rate problems including applications to electronic circuits and devices.
2. Sketch curves using the first and second derivatives, symmetry and asymptotes as appropriate. Solve optimization problems including applications to electronic circuits and devices. Find differentials, estimate errors and linearize functions.
3. Find antiderivatives of functions and use antiderivatives to solve applied problems including applications to electronics.
4. Use the Fundamental Theorem of Calculus to evaluate definite integrals. Using the trapezoidal rule and Simpson's rule, evaluate integrals for functions that cannot be integrated directly. Calculate areas between curves and find volumes of solids of revolution.
5. Differentiate trigonometric, inverse trigonometric, exponential and logarithmic functions.

3. Required Materials

(a) Texts *Basic Technical Mathematics with Calculus* (SI Version, 9th Edition) by Allyn J. Washington

(b) Other *nonprogrammable scientific calculator*, such as the Sharp EL-531X

4. Course Content and Schedule

Chapter 24 Sections 24.1-24.8
Chapter 27 Sections 27.1-27.3, 27.5, 27.6
Chapter 25 Sections 25.1-25.6
Chapter 26 Sections 26.1-28.3

Test 1 – January 24 ***Test 2*** – February 14 ***Test 3*** – March 7

5. Basis of Student Assessment (Weighting)

3 Tests	50%
Final Exam	50%

If your term work is complete and satisfactory, then your final exam mark may count for 100% of your final grade if this increases your grade.

6. Grading System

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	Minimum level of achievement for which credit is granted; a course with a "D" grade cannot be used as a prerequisite.	1
0-49	F	Minimum level has not been achieved.	0

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 E-1.5 at **camosun.ca** 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, due to design may require a further enrollment in the same course. No more than two IP grades will be assigned for the same course. *(For these courses a final grade will be assigned to either the 3rd course attempt or at the point of course completion.)*
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.

7. Recommended Materials or Services to Assist Students to Succeed Throughout the Course

LEARNING SUPPORT AND SERVICES FOR STUDENTS

There are a variety of services available for students to assist them throughout their learning.
This information is available in the College calendar, at Student Services, or the College web site at camosun.ca.

STUDENT CONDUCT POLICY

There is a Student Conduct Policy **which includes plagiarism**.
It is the student's responsibility to become familiar with the content of this policy.
The policy is available in each School Administration Office, at Student Services,
and the College web site in the Policy Section.