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:	Laura Shepherd		
(b)	Office Hours:	M-F 7:30-8:20 & 11:30 – 12:20; T 9:30- 10:20; M, W R, F 10:30 -12:20		
(c)	Location:	E 258		
(d)	Phone:	3499	Alternative Phone:	
(e)	Email:	shepherd@camosun.bc.ca		
(f)	Website:	https://sites.google.com/site/lmds5637/		

2.   Intended Learning Outcomes

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

1.   Find the limit of elementary functions as the independent variable approaches some finite value or approaches infinity.
2.   Find the derivative of simple functions using the definition of the derivative.
3.   Find the derivative of functions (polynomial, trigonometric, logarithmic and exponential functions) using the product, quotient and chain rule.
4.   Find the derivative using implicit differentiation.
5.   Solve problems involving rates of change.
6.   Find relative and absolute extrema of functions.
7.   Sketch graphs of functions identifying such features as relative extrema, intervals where the function is increasing and decreasing, points of inflection, intervals where the function is concave up and concave down, and asymptotes.
8.   Solve problems that involve maximizing or minimizing some variable associated with the problem.
9.   Find the approximate area under a curve using the area of a set of approximating rectangles.
10.   Evaluate a definite and an indefinite integral of polynomial, trigonometric, logarithmic and exponential functions using the Fundamental theorem of Calculus.
11.   Evaluate integrals using the method of substitution.
12.   Use integration to find the area between two curves.
13.   Evaluate a definite and indefinite integral by the method of integration by parts.
14.   Solve elementary differential equations using the method of separation of variables.
15.   Solve problems using differential and integral calculus that involve applications from business and/or biological sciences.

3.   Required Materials

(a)   **Text:** RN Greenwell, NP Ritchey and ML Lial, *Calculus with Applications for the Life Sciences,* Second Custom Edition for Camosun College, Pearson, 2003

(b) Calculator: As per Math Department policy, the only calculator permitted for use on the tests and the final exam is the **Sharp EL-531X(XG)** scientific calculator. No other make/model of calculator is permitted, nor are other electronic devices such as cell phones, smart watches, electronic translators, etc.

4.   Course Content and Schedule

Calendar Description:

For students in biology, business, economics or the social sciences who require only one semester of calculus. Topics include limits, derivatives of algebraic, logarithmic, exponential and trigonometric functions, the definite and indefinite integral and integration by parts.

5. Basis of Student Assessment (Weighting)

(a) **Evaluation:** Your final grade will be determined on the basis of Term Work worth 50% and a comprehensive Final Exam worth 50%. The final exam is 3 hours long and will be written during the week(s) following the end of classes, the time and place will be scheduled by the college.

STUDENTS MUST BE AVAILABLE TO WRIE THE FINAL EXAM AT THE SCHEDULED TIME.

(b) **Tests (45%):** There are three term tests. *There are no make- up tests*, if you must miss a test for any reason please see me as soon as possible so that I can give you a copy of the missed test to help you study for the final exam.

(c) **In Class Questions (5%):** Each Thursday, starting in week 2, during the first 5 minutes of class there will be a short in class quiz based on the previous weeks material. Please see the in class question set for exact questions.
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(d) **Academic Integrity:** The Department of Mathematics and Statistics has prepared a red handout called *Student Guidelines for Academic Integrity* to help you interpret college policies involving student conduct, academic dishonesty, plagiarism, etc. It is your responsibility to become familiar with the contents of the document and the college policies it references.

Minimum consequences for academic dishonesty in this course are as follows:

In Class Questions: The student will receive a zero for all of the in class questions.
Term Test: The student will receive a zero for the term test.
Final Exam: The student will receive a failing grade for the course.

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.

ADDITIONAL COMMENTS AS APPROPRIATE OR AS REQUIRED