	School of Arts & Science **Department of Mathematics & Statistics** **MATH 101** **Calculus 2** **Spring 2016**	

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:	See hours posted on door.		
(c)	Location:	E258		
(d)	Phone:	370-3499	Alternative Phone:	
(e)	Email:	shepherd@camosun.bc.ca		
(f)	Website:	https://sites.google.comsite/lmds5637m101		

2.   Intended Learning Outcomes

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

1.   Differentiate and integrate inverse trigonometric, hyperbolic and inverse hyperbolic functions.
2.   Use integration to find area, volume, arc length, surface area of revolution, work, moments and centroids.
3.   Integrate using parts, trigonometric integrals, trigonometric substitution, partial fractions and tables.
4.   Evaluate limits, which have indeterminate forms, and calculate improper integrals.
5.   Test a sequence for convergence and explain the difference between convergence of a sequence and convergence of a series.
6.   Test series for convergence using the integral test, p-test, comparison tests, alternating series test and ratio test and explain the difference between convergence and absolute convergence.
7.   Estimate the error in approximating a series using improper integrals and the alternating series remainder.
8.   Calculate Taylor polynomials, power series, Taylor series, and MacLaurin series and estimate the error in an approximation using Taylor's Theorem.
9.   Determine the interval of convergence of a power series.
10.   Graph and analyze parametric curves and find arc length and surface area in parametric form.
11.   Graph and analyze curves given in polar coordinates and determine area and arc length in polar form.

3.   Required Materials

a)   **Text:** Larson, Hostetler and Edwards, *Calculus of a Single Variable,* 10th edition..

(b)   **Calculator:** As per department policy, the only calculator permitted for use on tests and the final exam is the Sharp EL-531X (or EL-531XG) scientific calculator. No other calculator, nor any other electronic device including cell phones, smart watches, electronic translators iPods, etc, is allowed.

4.   Course Content and Schedule

Calendar Description:

A continuation of MATH 100. Topics include: inverse and hyperbolic trigonometric functions, applications of integration, integration techniques, LHopital's Rule, improper integrals, infinite series, Taylor series, parametric equations and polar coordinates.

A&S Math Lab:

E224: This drop-in centre is freely available for your use to work on math homework and to seek help from the tutor on staff (see hours posted on door).

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.

5. Basis of Student Assessment (Weighting)

(a) **In Class Questions:** Twice a week, during the first 5 minutes of class, there will be a question and/or formula assigned based on the previous lectures. These in-class questions will count for 5% of your grade. There will be a total of 12 in-class questions of which each student may miss one without penalty.

(b) **Quizzes:** There will be a total of three term tests which will count for 45% of your grade. There are no make up tests, if you miss a test for any reason please see me as soon as possible.

(c) **Exam:** There is a comprehensive final exam worth 50% of your grade. The final exam is three hours long and will be written during the week following the end of classes

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