

School of Arts & Science MATHEMATICS DEPARTMENT

MATH 101- 001 Calculus 2 2013P

COURSE OUTLINE

The Approved Course Description is available on the web @ http://camosun.ca/learn/calendar/current/web/math.html

Please note: this outline will be electronically stored for five (5) years only. It is strongly recommended students keep this outline for your records.

(a)	Instructor:	Laura Shepherd	
(b)	Office Hours:	T, W Th 11:30 - 2:20	
(C)	Location:	E258	
(d)	Phone:	370-3499	Alternative Phone:
(e)	Email:	shepherd@camosun.bc.ca	
(f)	Website:	https://sites.google.com/site/Imds5637/m101	

1. Instructor Information

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: <u>Calculus of a Single Variable, 9th edition</u> by Larson, Hostetler and Edwards, available in the College Bookstore. It is also acceptable to use the 7th or 8th editions of this text book as they are all virtually identical.
- b) Calculator: As per Math Department policy, the only calculator permitted for use on tests and the final exam is the <u>Sharp EL-531X</u> (or the discontinued EL-531W) scientific calculator. No other make/model of calculator is permitted, nor are other electronic devices such as cell phones, iPods, electronic translators, etc.

4. Course Content and Schedule

Tentative Test Dates:

Test 1: Tuesday May 21st Test 2: Thursday May 30th Test 3: Thursday June 13th

Final Exam Period: June 24 - 26 Students MUST be available to write the final exam at the scheduled date and time.

Classes: M - Th 2:30 - 4:50 F200 Week 1 M - Th 2:30 - 4:50 F206 Week 2 - Week 7

5. Basis of Student Assessment (Weighting)

- a) Quizzes (40%): There will be 3 in class tests. *
- b) Daily Questions (10%): Each day at the beginning of lecture (first 10 minutes) there will be a question assigned based on the last days material. Each question will be worth one mark and there will be a total of approximately 23 daily questions. Of the approximately 23 questions you get 5 "freebees" which do not count towards your grade. The five "free" questions are there incase you miss a class for any reason, your late or you get one wrong.
- c) Final Exam (50% or 100%)**
- * There are no make-up tests. If you miss a test for any reason please see me as soon as possible.
- * * If you have written all if your quizzes and attained an average of 50% or higher than your final exam grade may be used to replace your term grade.

Percentage	Grade	Description	Grade Point Equivalency
95-100	A+		9
90-94	А		8
85-89	A-		7
80-84	B+		6
75-79	В		5
70-74	B-		4
65-69	C+		3
60-64	С		2
50-59	D		1
0-49	F	Minimum level has not been achieved.	0

6. Grading System Standard Grading System (GPA)

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 **camosun.ca** or information on conversion to final grades, and for additional information on student record and transcript notations.

Temporary Grade	Description
I	<i>Incomplete</i> : 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	<i>In progress</i> : A temporary grade assigned for courses that are designed to have an anticipated enrollment that extends beyond one term. No more than two IP grades will be assigned for the same course.
CW	<i>Compulsory Withdrawal:</i> 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.

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 E1.5 at **camosun.ca** for information on conversion to final grades, and for additional information on student record and transcript notations.

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

Resources: Math Lab (Ewing 224). This is a drop- in centre where you can get help with your math homework. The hours will be posted on the door.

Online Resources : If you have purchased a new textbook you will receive a password which will give you access to free <u>online tutoring</u> on the internet.

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 <u>camosun.ca</u>.

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 on the College web site in the Policy Section.