Course Outline

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Course Website: D2L available through www.camosun.ca

Important Dates:

February 1	First day of Math 100
February 8	BC Family Day - no classes
March 14 - 24	Spring Break - no classes.
March 25 - 28	Easter - no classes.
April 28	Last day of Math 100
May 25	Final Exam for Math 100

Textbook: Ron Larson and Bruce H. Edwards, *Calculus of a Single Variable*, 10th Edition, Brooks/Cole, 2014.

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. Define continuity.

3. Find the derivative of simple functions using the definition.

4. Find the derivative of functions (polynomial, trigonometric, logarithmic and exponential functions) using the product, quotient and chain rule.

5. Find the derivative using implicit differentiation.

6. Solve problems involving rates of change.

7. Find relative and absolute extrema of functions.

8. 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.

9. Solve problems that involve maximizing or minimizing some variable associated with the problem.

10. Solve equations using Newton's method.

11. Find the area under a curve using the limit of the area of a set of approximating rectangles.

12. Evaluate a definite and an indefinite integral of polynomial, trigonometric, logarithmic

and exponential functions using the Fundamental theorem of Calculus.

13. Use the Mean Value Theorem of integrals to find the mean value of a continuous function.

14. Evaluate integrals using the method of substitution.

15. Evaluate definite integrals using the trapezoidal rule and Simpson's rule.

16. Solve elementary differential equations using the method of separation of variables.

Grade Calculation: The final grade will be calculated according to the following breakdown

Quizzes:	14%
Term Tests:	36%
Final Exam:	50%

Quizzes: There will be short weekly quizzes taken from the suggested exercises in your textbook. Your final grade on quizzes will be calculated after dropping your worst **two** scores.

Tests: There will be 3 in-class midterm tests. Each test is worth 12% of your final grade.

There are NO make up exams. If you cannot write a test, you must notify me immediately. If you miss a test for valid reasons, you must present proof of those reasons and your course score will be re-calculated out of the remaining course components.

Final Examination: The 3-hour comprehensive final examination is worth 50% of your grade and will take place on May 25th. You must write the final exam at the scheduled time as per Camosun College's policy on final examinations. See `camosun.ca/learn/calendar/current/procedures.html#academic`.

The following is the grading table used to convert percentages into letter grades:

A+	A	A-	B+	B	B-	C+	C	D	F
90-100%	85-89%	80-84%	77-79%	73-76%	70-72%	65-69%	60-64%	50-59%	0-49%

For information on Camosun College's grading policy, see Sec E-1.5 on the policy webpage `camosun.ca/about/policies/policies.html#education`.

Calculators: As per department policy, no graphing calculators will be permitted for use on tests or the final exam. You must use a scientific calculator, no other electronic devices including cell phones, electronic translators, iPods, etc., is allowed.

Academic Integrity: I encourage you to work with your classmates and use all resources available to you. 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.