

COURSE SYLLABUS



COURSE TITLE: MATH-108: Applied Calculus
CLASS SECTION: 003
TERM: Fall 2023
COURSE CREDITS: 3
DELIVERY METHOD(S): In-person – Lansdowne Campus – Ewing 325

Camosun College campuses are located on the traditional territories of the Ləkʷəŋən and W̱SÁNEĆ peoples. We acknowledge their welcome and graciousness to the students who seek knowledge here. Learn more about Camosun's [Territorial Acknowledgement](#).

INSTRUCTOR DETAILS

NAME: Amanda Malloch
EMAIL: MallochA@camosun.ca
OFFICE: Ewing 262
HOURS: Tues/Thurs 10:30am -- 12:20pm and Wed 11:30-12:20, or by appointment

As your course instructor, I endeavour to provide an inclusive learning environment. However, if you experience barriers to learning in this course, do not hesitate to discuss them with me. Camosun College is committed to identifying and removing institutional and social barriers that prevent access and impede success.

CALENDAR DESCRIPTION

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

PREREQUISITE(S):

One of:

C+ in Pre-calculus 12; C in Pre-calculus 12 and Calculus 12; C+ in MATH 097; C in MATH 107; C in MATH 115

CO-REQUISITE(S):

Not Applicable

EXCLUSION(S):

Notes: Only one of MATH 100 or MATH 108 may be used towards a Camosun College credential.

COURSE LEARNING OUTCOMES / OBJECTIVES

Upon completion of this course a 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.
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REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

- Calculator – As per department policy, the only allowable calculators for use on quizzes and the final exam are the Sharp EL-531 or 510 models.
- MyOpenMath – Assignments will be completed using www.myopenmath.com. You will need to create a (free) account and register in our course. Instructions are posted on our D2L page.

COURSE SCHEDULE, TOPICS, AND ASSOCIATED PREPARATION / ACTIVITY / EVALUATION

The following schedule and course components are subject to change with reasonable advance notice, as deemed appropriate by the instructor.

Date	Course Component	Expected Coverage
Wednesday, Sept 13 th	Assignment 1	
Wednesday, Sept 20 th	Assignment 2	
Wednesday, Sept 27 th	Assignment 3	
Wednesday, Oct 4 th	Assignment 4	
Friday, Oct 6 th	Test 1	Chapter 1 and 2.2-2.3
Wednesday, Oct 11 th	Assignment 5	
Wednesday, Oct 18 th	Assignment 6	
Wednesday, Oct 25 th	Assignment 7	
Friday, Oct 27 th	Test 2	Chapter 2
Wednesday, Nov 1 st	Assignment 8	
Wednesday, Nov 8 th	Assignment 9	
Wednesday, Nov 15 th	Assignment 10	
Friday, Nov 17 th	Test 3	Chapter 3 and 4.2
Wednesday, Nov 22 nd	Assignment 11	
Wednesday, Nov 29 th	Assignment 12	
Wednesday, Dec 6 th	Test 4	4.3-4.4 and 5.1-5.4
Friday, Dec 8 th	Assignment 13	

Students registered with the Centre for Accessible Learning (CAL) who complete quizzes, tests, and exams with academic accommodations have booking procedures and deadlines with CAL where advanced notice is required. Deadlines can be reviewed on the [CAL exams page](http://camosun.ca/services/accessible-learning/exams.html). <http://camosun.ca/services/accessible-learning/exams.html>

EVALUATION OF LEARNING

DESCRIPTION	WEIGHTING
Assignments (using MyOpenMath)	12%
Tests -- 4 tests at 12% each	48%
Final Exam	40%
	TOTAL
	100%

If you have a concern about a grade you have received for an evaluation, please come and see me as soon as possible. Refer to the [Grade Review and Appeals](http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf) policy for more information.
<http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf>

The course coverage for each test and assignment are approximate and could change. I will announce any changes during class and post on D2L.

COURSE GUIDELINES & EXPECTATIONS

While I do have videos available on YouTube, I feel attendance and participation during class as well as keeping up with the suggested exercises is *extremely important* in order for success in this course.

There will be no make-up test. If you must miss a test due to illness, you need to inform me of your absence before the test with a valid reason provided (doctor's note may be required) and your grade will be determined using the relevant portion of the final exam.

SCHOOL OR DEPARTMENTAL INFORMATION

You are welcome and encouraged to make use of Camosun's Math Lab where there is an instructional assistant who can answer questions about the content of the course. Instructions on how to 'drop in' and/or make an appointment for assistance will be posted on our D2L course page. You may also use the link in the list below to find more information about the Math Lab.

STUDENT RESPONSIBILITY

Enrolment at Camosun assumes that the student will become a responsible member of the College community. As such, each student will display a positive work ethic, assist in the preservation of College property, and assume responsibility for their education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting expectations concerning attendance, assignments, deadlines, and appointments.

SUPPORTS AND SERVICES FOR STUDENTS

Camosun College offers a number of services to help you succeed in and out of the classroom. For a detailed overview of the supports and services visit <http://camosun.ca/students/>.

Academic Advising	http://camosun.ca/advising
Accessible Learning	http://camosun.ca/accessible-learning
Counselling	http://camosun.ca/counselling
Career Services	http://camosun.ca/coop
Financial Aid and Awards	http://camosun.ca/financialaid
Help Centres (Math/English/Science)	http://camosun.ca/help-centres
Indigenous Student Support	http://camosun.ca/indigenous
International Student Support	http://camosun.ca/international/
Learning Skills	http://camosun.ca/learningskills
Library	http://camosun.ca/services/library/
Office of Student Support	http://camosun.ca/oss
Ombudsperson	http://camosun.ca/ombuds
Registration	http://camosun.ca/registration
Technology Support	http://camosun.ca/its
Writing Centre	http://camosun.ca/writing-centre

If you have a mental health concern, please contact Counselling to arrange an appointment as soon as possible. Counselling sessions are available at both campuses during business hours. If you need urgent support after-hours, please contact the Vancouver Island Crisis Line at 1-888-494-3888 or call 911.

COLLEGE-WIDE POLICIES, PROCEDURES, REQUIREMENTS, AND STANDARDS

Academic Accommodations for Students with Disabilities

The College is committed to providing appropriate and reasonable academic accommodations to students with disabilities (i.e. physical, depression, learning, etc). If you have a disability, the [Centre for Accessible Learning](http://camosun.ca/services/accessible-learning/) (CAL) can help you document your needs, and where disability-related barriers to access in your courses exist, create an accommodation plan. By making a plan through CAL, you can ensure you have the appropriate academic accommodations you need without disclosing your diagnosis or condition to course instructors. Please visit the CAL website for contacts and to learn how to get started:

<http://camosun.ca/services/accessible-learning/>

Academic Integrity

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.13.pdf> for policy regarding academic expectations and details for addressing and resolving matters of academic misconduct.

Academic Progress

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.1.pdf> for further details on how Camosun College monitors students' academic progress and what steps can be taken if a student is at risk of not meeting the College's academic progress standards.

Course Withdrawals Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <http://camosun.ca/learn/fees/#deadlines>.

Grading Policy

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf> for further details about grading.

Grade Review and Appeals

Please visit <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

Mandatory Attendance for First Class Meeting of Each Course

Camosun College requires mandatory attendance for the first class meeting of each course. If you do not attend, and do not provide your instructor with a reasonable reason in advance, you will be removed from the course and the space offered to the next waitlisted student. For more information, please see the "Attendance" section under "Registration Policies and Procedures" (<http://camosun.ca/learn/calendar/current/procedures.html>) and the Grading Policy at <http://camosun.ca/about/policies/education-academic/e-1-programming-and-instruction/e-1.5.pdf>.

Medical / Compassionate Withdrawals

Students who are incapacitated and unable to complete or succeed in their studies by virtue of serious and demonstrated exceptional circumstances may be eligible for a medical/compassionate withdrawal. Please visit <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.8.pdf> to learn more about the process involved in a medical/compassionate withdrawal.

Sexual Violence and Misconduct

Camosun is committed to creating a campus culture of safety, respect, and consent. Camosun's Office of Student Support is responsible for offering support to students impacted by sexual violence. Regardless of when or where the sexual violence or misconduct occurred, students can access support at Camosun. The Office of Student Support will make sure students have a safe and private place to talk and will help them understand what supports are available and their options for next steps. The Office of Student Support respects a student's right to choose what is right for them. For more information see Camosun's Sexualized Violence and Misconduct Policy: <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.9.pdf> and camosun.ca/sexual-violence. To contact the Office of Student Support: oss@camosun.ca or by phone: 250-370-3046 or 250-3703841

Student Misconduct (Non-Academic)

Camosun College is committed to building the academic competency of all students, seeks to empower students to become agents of their own learning, and promotes academic belonging for everyone. Camosun also expects that all students to conduct themselves in a manner that contributes to a positive, supportive, and safe learning environment. Please review Camosun College's Student Misconduct Policy at <http://camosun.ca/about/policies/education-academic/e-2-student-services-and-support/e-2.5.pdf> to understand the College's expectations of academic integrity and student behavioural conduct.

Changes to this syllabus: Every effort has been made to ensure that information in this syllabus is accurate at the time of publication. The College reserves the right to change courses if it becomes necessary so that course content remains relevant. In such cases, the instructor will give the students clear and timely notice of the changes.

OTHER IMPORTANT DATES

- Tuesday, Sept 5th – First day of classes.
- Monday, Sept 11th – Last day to add courses/Last day to drop with 80% refund.
- Monday, Oct 2nd – No classes – Truth and Reconciliation Day Observance
- Monday, Oct 9th – No classes – Thanksgiving Day
- Monday, Nov 13th – No classes – Remembrance Day Observance
- Friday, Dec 8th – Last day of our class.
- Saturday, Dec 9th – Last day to drop without academic penalty.
- Dec 11th to Dec 19th – Exam Period.