

COURSE SYLLABUS



COURSE TITLE: MATH-108-Applied Calculus
CLASS SECTION: 002
TERM: 2024F
COURSE CREDITS: 3
DELIVERY METHOD(S): Face-to-Face – Lansdowne Campus – Fisher 306

Camosun College respectfully acknowledges that our campuses are situated on the territories of the Ləkʷəŋən (Songhees and Kosapsum) and WSÁNEĆ peoples. We honour their knowledge and welcome to all students who seek education here.

INSTRUCTOR DETAILS

NAME: Amanda Malloch
EMAIL: MallochA@camosun.ca
OFFICE: Ewing 262
HOURS: Tuesday/Thursday 1:30-2:30pm, Wednesday 9:30-10:30am, 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):

EQUIVALENCIES:

COURSE LEARNING OUTCOMES / OBJECTIVES

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

Find the limit of elementary functions as the independent variable approaches some finite value or approaches infinity.

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

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

Find the derivative using implicit differentiation.

Solve problems involving rates of change.

Find relative and absolute extrema of functions.

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.

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

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

Evaluate a definite and an indefinite integral of polynomial, trigonometric, logarithmic and exponential functions using the Fundamental theorem of Calculus.

Evaluate integrals using the method of substitution.

Use integration to find the area between two curves.

Evaluate a definite and indefinite integral by the method of integration by parts.

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

Solve problems using differential and integral calculus that involve applications from business and/or biological sciences.

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
Friday, Sept 13 th	Assignment 1 Due	
Friday, Sept 20 th	Assignment 2 Due	
Thursday, Sept 26 th	Test 1	Chapter 1 and 2.2-2.3
Friday, Sept 27 th	Assignment 3 Due	
Friday, Oct 4 th	Assignment 4 Due	
Friday, Oct 11 th	Assignment 5 Due	
Friday, Oct 18 th	Assignment 6 Due	
Thursday, Oct 24 th	Test 2	Chapter 2
Friday, Oct 25 th	Assignment 7 Due	
Friday, Nov 1 st	Assignment 8 Due	
Friday, Nov 8 th	Assignment 9 Due	
Thursday, Nov 14 th	Test 3	Chapter 3 and 4.2
Friday, Nov 15 th	Assignment 10 Due	
Friday, Nov 22 nd	Assignment 11 Due	
Tuesday, Dec 3 rd	Test 4	4.3-4.4 and 5.1-5.4
Friday, Nov 29 th	Assignment 12 Due	
Friday, Dec 6 th	Assignment 13 Due	

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](https://camosun.ca/services/academic-supports/accessible-learning/academic-accommodations-exams). <https://camosun.ca/services/academic-supports/accessible-learning/academic-accommodations-exams>

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](#) policy for more information.

<https://camosun.ca/sites/default/files/2021-05/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 camosun.ca/services.

Support Service	Website
Academic Advising	camosun.ca/services/academic-supports/academic-advising
Accessible Learning	camosun.ca/services/academic-supports/accessible-learning
Counselling	camosun.ca/services/health-and-wellness/counselling-centre
Career Services	camosun.ca/services/co-operative-education-and-career-services
Financial Aid and Awards	camosun.ca/registration-records/financial-aid-awards
Help Centres (Math/English/Science)	camosun.ca/services/academic-supports/help-centres
Indigenous Student Support	camosun.ca/programs-courses/iecc/indigenous-student-services
International Student Support	camosun.ca/international
Learning Skills	camosun.ca/services/academic-supports/help-centres/writing-centre-learning-skills
Library	camosun.ca/services/library
Office of Student Support	camosun.ca/services/office-student-support
Ombudsperson	camosun.ca/services/ombudsperson
Registration	camosun.ca/registration-records/registration
Technology Support	camosun.ca/services/its
Writing Centre	camosun.ca/services/academic-supports/help-centres/writing-centre-learning-skills

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.

Academic Integrity

Students are expected to comply with all College policy regarding academic integrity; which is about honest and ethical behaviour in your education journey. The following guide is designed to help you understand your responsibilities: <https://camosun.libguides.com/academicintegrity/welcome>

Please visit <https://camosun.ca/sites/default/files/2021-05/e-1.13.pdf> for Camosun's Academic Integrity policy and details for addressing and resolving matters of academic misconduct.

Academic Accommodations for Students with Disabilities

Camosun College is committed to achieving full accessibility for persons with disabilities. Part of this commitment includes arranging appropriate academic accommodations for students with disabilities to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a documented disability and think you may need accommodations, you are strongly encouraged to contact the Centre for Accessible Learning (CAL) and register as early as possible. Please visit the CAL website for more information about the process of registering with CAL, including important deadlines:

<https://camosun.ca/cal>

Academic Progress

Please visit <https://camosun.ca/sites/default/files/2023-02/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 <https://camosun.ca/sites/default/files/2021-05/e-2.2.pdf> for further details about course withdrawals. For deadline for fees, course drop dates, and tuition refund, please visit <https://camosun.ca/registration-records/tuition-fees#deadlines>.

Grading Policy

Please visit <https://camosun.ca/sites/default/files/2021-05/e-1.5.pdf> for further details about grading.

Grade Review and Appeals

Please visit <https://camosun.ca/sites/default/files/2021-05/e-1.14.pdf> for policy relating to requests for review and appeal of grades.

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 (see [Medical/Compassionate Withdrawals policy](#)). Please visit <https://camosun.ca/services/forms#medical> to learn more about the process involved in a medical/compassionate withdrawal.

Sexual Violence

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 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 Policy: <https://camosun.ca/sites/default/files/2021-05/e-2.9.pdf> and camosun.ca/services/sexual-violence-support-and-education.

To contact the Office of Student Support: oss@camosun.ca or by phone: 250-370-3046 or 250-370-3841

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 <https://camosun.ca/sites/default/files/2021-05/e-2.5.pdf> to understand the College's expectations of academic integrity and student behavioural conduct.

Looking for other policies?

The full suite of College policies and directives can be found here: <https://camosun.ca/about/camosun-college-policies-and-directives>

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, September 3rd – First day of classes.
- Monday, September 9th – Last day to add courses/Last day to drop with 80% refund.
- Monday, September 30th – National Day of Truth and Reconciliation (no classes).
- Monday, October 14th – Thanksgiving Day (no classes).
- Monday, November 11th – Remembrance Day (no classes).
- Saturday, December 7th – Last day of classes.
- Saturday, December 7th – Last day to drop without academic penalty.
- December 9th – December 17th – Final Exam Period

