

# COURSE SYLLABUS



COURSE TITLE: MATH-101-Calculus 2

CLASS SECTION: 001

TERM: 2025W

COURSE CREDITS: 3

DELIVERY METHOD(S): In-person lecture

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

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## INSTRUCTOR DETAILS

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NAME: Chedo Barone

EMAIL: [baronec@camosun.ca](mailto:baronec@camosun.ca)

OFFICE: Lansdowne: Ewing 266, Interurban CBA 156

HOURS: Lansdowne: Tuesday 2:30 – 3:20, Friday 10:30-11:20. Interurban: Monday 1:30 – 2:20, Thursday 1:30 – 2:20, 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

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A continuation of MATH 100. Topics include: inverse and hyperbolic trigonometric functions, applications of integration, integration techniques, L'Hopitals Rule, improper integrals, infinite series, Taylor series, parametric equations and polar coordinates. Students will complete some assignments using Maple.

PREREQUISITE(S):

One of:

C in MATH 100

A in MATH 108

CO-REQUISITE(S):

EQUIVALENCIES:

## COURSE LEARNING OUTCOMES / OBJECTIVES

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

Differentiate and integrate inverse trigonometric, hyperbolic and inverse hyperbolic functions.

Use integration to find area, volume, arc length, surface area of revolution, work, moments and centroids.

Integrate using parts, trigonometric integrals, trigonometric substitution, partial fractions and tables.

Evaluate limits, which have indeterminate forms, and calculate improper integrals.

Test a sequence for convergence and explain the difference between convergence of a sequence and convergence of a series.

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.

Estimate the error in approximating a series using improper integrals and the alternating series remainder.

Calculate Taylor polynomials, power series, Taylor series, and Maclaurin series and estimate the error in an approximation using Taylor's Theorem.

Determine the interval of convergence of a power series.

Graph and analyze parametric curves and find arc length and surface area in parametric form.

Graph and analyze curves given in polar coordinates and determine area and arc length in polar form.

## REQUIRED MATERIALS & RECOMMENDED PREPARATION / INFORMATION

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**Textbook:** Ron Larson and Bruce Edwards, Calculus of a Single Variable, 12th Edition, Cengage Learning, 2023. The 11<sup>th</sup> and 10<sup>th</sup> editions are also fine to use as well.

**Calculator:** Sharp EL-531 (or EL-510R) scientific calculator

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

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

| WEEK or DATE RANGE       | ACTIVITY or TOPIC            | OTHER NOTES |
|--------------------------|------------------------------|-------------|
| Weekly, completed online | WeBWorK homework assignments |             |

| WEEK or DATE RANGE          | ACTIVITY or TOPIC                              | OTHER NOTES |
|-----------------------------|--|-------------|
| Week 5:<br>Wednesday Feb 5  | Test 1 (sec 5.7-5.9 and 7.1-7.5)               |             |
| Week 9:<br>Wednesday Mar 5  | Test 2 (sec 7.6-7.7, 8.1-8.5, 8.7-8.8 and 5.6) |             |
| Week 13:<br>Wednesday Apr 2 | Test 3 (sec 9.1-9.10)                          |             |
| Apr 14-25                   | Final Exam (covers Chapter 5, 7, 8, 9, and 10) |             |

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

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| DESCRIPTION         | WEIGHTING         |
|---------------------|-------------------|
| Midterm 1           | 15%               |
| Midterm 2           | 15%               |
| Midterm 3           | 15%               |
| WeBWorK assignments | 15%               |
| Final Exam          | 40%               |
|                     | <b>TOTAL</b> 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>

#### COURSE GUIDELINES & EXPECTATIONS

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**WeBWorK Online Homework:** Every week, a selection of practice problems will be assigned through the WeBWorK platform, due to be completed by the following week. The link to our WeBWorK page can be found on our D2L page. You will be allowed to attempt the assignment questions as many times as you would like. Each assignment will remain open after its due date for *half of the original marks*, until the beginning of the final exam period. You can find the link to WeBWorK on our D2L page.

**Midterms:** There are 3 midterm exams, each with a duration of 50 minutes. The coverage of each midterm is given in the schedule given above in this syllabus. Before each midterm, a collection of sample midterm exams will be posted on D2L for your practice.

**Midterm Absences:** If you miss a midterm for a legitimate reason such as illness, accident or family affliction, you should notify me (by email, or in person) as soon as possible and before the midterm (unless circumstances reasonably prevent you from doing so).

In the case of a missed midterm exam, I will use the mark from the relevant portions of your final exam to calculate a mark for that missed exam. **I will excuse a student from a maximum of one midterm exam.**

#### SCHOOL OR DEPARTMENTAL INFORMATION

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**A&S Math Lab (Ewing 224):** This drop-in centre is freely available for your use to work on math homework and to seek help from the instructional assistant. Hours are posted on the door or online at [camosun.ca/services/academic-supports/help-centres/math-help](https://camosun.ca/services/academic-supports/help-centres/math-help).

**Academic Integrity:** The Department of Mathematics and Statistics has prepared a 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.

**Calculator Policy:** As per department policy, the only calculator permitted for use on tests and the final exam is the Sharp EL-531 (or EL-510R) scientific calculator. No other calculator or any other electronic device including cell phones, smartwatches, etc. is allowed.

#### STUDENT RESPONSIBILITY

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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

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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](https://camosun.ca/services).

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Support Service

Website

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Academic Advising

[camosun.ca/services/academic-supports/academic-advising](https://camosun.ca/services/academic-supports/academic-advising)

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

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 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](https://camosun.ca/services/sexual-violence-support-and-education).

To contact the Office of Student Support: [oss@camosun.ca](mailto: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.

