UNIVERSITY OF CALGARY
FACULTY OF SCIENCE

Department of Mathematics & Statistics
MS 476
403 220-5210
mathinfo@ucalgary.ca

COURSE OUTLINE FOR REMOTE LEARNING

1. **Course:** MATH 249, Introductory Calculus - Spring 2020

   Lecture 01: MWF 09:00 - 11:30 - Online

Instructor	Email	Phone	Office	Hours
Dr. Lauren DeDieu	lauren.dedieu@ucalgary.ca	403 220-5056	MS 528	TBA

Remote Learning Supplemental Information:

Some aspects of this course are being offered in real-time via scheduled meeting times. For those aspects you are required to be online at the same time. Please refer to the details below for more complete information.

Remote Learning Details:

The core content of this course will be delivered via pre-recorded video lectures. Students will watch the videos during their own time. Each video set has a corresponding quiz, designed to assess basic understanding of the video content.

You should pause the videos and take notes as you would during a normal class. *Early slides* will be posted in advance. We encourage you to download these *Early Slides* and fill in the blanks as you watch the videos.

We will be offering **live lectures** via Zoom **WF 10-11am** where we will review the video content. We will not reteach the video content during these sessions. (You will have already watched the videos and completed the video quiz prior to lecture.) We will instead focus on recapping key ideas, answering questions, and completing more challenging examples.

We will also be offering **live sessions** via Zoom **WF 9-10am** geared towards MATH 249 students. These sessions will focus on working through additional problems and will recap required precalculus concepts, as needed.

There will also be a **lab session** via Zoom **M 10am-12pm**.

These live lectures and labs are not mandatory; this course can be completed asynchronously. However, we encourage you to attend! We plan to record all live sessions and will post the recordings on D2L.

Live Lecture Details:

Mondays:

10am – 12pm: Lab Session

Note: Mon. May 18 th is Victoria Day, so there is no live lab this day. This lab will be held on Fri. May 15 th from 3-5pm instead. There is also an extra "Midterm Review" lab scheduled on Thursday Jun. 18th, 12-2pm.

Wednesdays (Topic A)/ Fridays (Topic B): Live Lectures

9 – 10am: Problem-solving Session. (MATH 249*).

10 – 11am: Video Recap Session. (Everyone)

11 – 11:30am: Unstructured office hour Q&A session (stick around if you have additional questions).

* Note that MATH 265 students are also welcome to join the MATH 249 sessions (these sessions are just more geared towards MATH 249 students and occur during the scheduled MATH 249 class time).

Course Site:

D2L: MATH 249 L01-(Spring 2020)-Introductory Calculus

Note: Students must use their U of C account for all course correspondence.

2. **Requisites:**

   See section 3.5.C in the Faculty of Science section of the online Calendar.

   Prerequisite(s):
   Mathematics 30-1 or Mathematics 2 (offered by Continuing Education).

   Antirequisite(s):
   Not open to students with 50 per cent or higher in Mathematics 31 or a grade of "C" or higher in Mathematics 3

offered through University of Calgary Continuing Education, except with special departmental permission. Credit for Mathematics 249 and either 265 or 275 will not be allowed.

3. **Grading:**

The University policy on grading and related matters is described in F.1 and F.2 of the online University Calendar. In determining the overall grade in the course the following weights will be used:

Component(s)	Weighting %	Date
WeBWorK Assignments	5	Every Monday (from May 11th to Jun. 15th)
Quizzes	15	Every Tuesday & Thursday (from Tues. May 12th to Thurs. Jun. 11th).
Midterm 1	25	2 hr (with 3 hr window) Opens: Mon. May 25th, 1pm. Closes: Mon. May 25th 4pm
Midterm 2	25	2 hr (with 3 hr window) Opens: Mon. Jun. 8th, 1pm. Closes: Mon. Jun. 8th, 4pm.
Midterm 3	30	To be scheduled by Registrar*

The midterms will be timed online assessments. Students may choose to begin writing the midterm at any time in the specified time window. They must complete the midterm by the end of the time window. Once the midterm has been opened, the clock will begin.

Additional time will be granted to SAS students, and other accommodation will be done on a case-by-case basis.

*If our scheduled time was 1-4pm on June 20, 2020, then the midterm must be submitted by 4pm on June 20, 2020.

Each piece of work (reports, assignments, quizzes, midterm exam(s) or final examination) submitted by the student will be assigned a grade. The student's grade for each component listed above will be combined with the indicated weights to produce an overall percentage for the course, which will be used to determine the course letter grade.

The conversion between a percentage grade and letter grade is as follows.

	A+	A	A-	B+	B	B-	C+	C	C-	D+	D
Minimum % Required	95 %	90 %	85 %	80%	76%	72 %	68 %	64%	60%	55 %	50 %

This course has a registrar scheduled final exam.

4. **Missed Components Of Term Work:**

The university has suspended the requirement for students to provide evidence for absences. Please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations.

In the event that a student legitimately fails to submit any online assessment on time (e.g. due to illness etc...), please contact the course coordinator to arrange for a re-adjustment of a submission date. Absences not reported within 48 hours will not be accommodated. If an excused absence is approved, then the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course.

5. **Scheduled Out-of-Class Activities:**

There are no scheduled out of class activities for this course.

6. **Course Materials:**

Required Textbook(s):

Joel Feldman, Andrew Rechnitzer, Elyse Yeager, *CLP Calculus Textbooks: CLP-I Differential Calculus and CLP-II Integral Calculus.*: Open access eBook http://www.math.ubc.ca/~CLP.

7. **Examination Policy:**

The midterms in this course are online. However, collaborating with others during the midterms is still considered cheating. Consulting your classmates or any other person concerning the content of the midterms is strictly prohibited.

Students should also read the Calendar, Section G, on Examinations.

8. **Approved Mandatory And Optional Course Supplemental Fees:**

There are no mandatory or optional course supplemental fees for this course.

9. **Writing Across The Curriculum Statement:**

For all components of the course, in any written work, the quality of the student's writing (language, spelling, grammar, presentation etc.) can be a factor in the evaluation of the work. See also Section E.2 of the University Calendar.

10. **Human Studies Statement:**

Students will not participate as subjects or researchers in human studies.

See also Section E.5 of the University Calendar.

11. **Reappraisal Of Grades:**

A student wishing a reappraisal, should first attempt to review the graded work with the Course coordinator/instructor or department offering the course. Students with sufficient academic grounds may request a reappraisal. Non-academic grounds are not relevant for grade reappraisals. Students should be aware that the grade being reappraised may be raised, lowered or remain the same. See Section I.3 of the University Calendar.

a. **Term Work:** The student should present their rationale as effectively and as fully as possible to the Course coordinator/instructor within **ten business days** of either being notified about the mark, or of the item's return to the class. If the student is not satisfied with the outcome, the student shall submit the Reappraisal of Graded Term work form to the department in which the course is offered within 2 business days of receiving the decision from the instructor. The Department will arrange for a reappraisal of the work within the next ten business days. The reappraisal will only be considered if the student provides a detailed rationale that outlines where and for what reason an error is suspected. See sections I.1 and I.2 of the University Calendar

b. **Final Exam:**The student shall submit the request to Enrolment Services. See Section I.3 of the University Calendar.

12. **Other Important Information For Students:**

a. **Mental Health** The University of Calgary recognizes the pivotal role that student mental health plays in physical health, social connectedness and academic success, and aspires to create a caring and supportive campus community where individuals can freely talk about mental health and receive supports when needed. We encourage you to explore the mental health resources available throughout the university community, such as counselling, self-help resources, peer support or skills-building available through the SU Wellness Centre (Room 370, MacEwan Student Centre, Mental Health Services Website) and the Campus Mental Health Strategy website (Mental Health).

b. **SU Wellness Center:** For more information, see www.ucalgary.ca/wellnesscentre or call 403-210-9355.

c. **Sexual Violence:** The Sexual Violence Support Advocate, Carla Bertsch, can provide confidential support and information regarding sexual violence to all members of the university community. Carla can be reached by email (svsa@ucalgary.ca) or phone at 403-220-2208. The complete University of Calgary policy on sexual violence can be viewed at (https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf)

d. **Misconduct:** Academic misconduct (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the University Calendar under Section K. Student Misconduct to inform yourself of definitions, processes and penalties. Examples of academic misconduct may include: submitting or presenting work as if it were the student's own work when it is not; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; collaborating in whole or in part without prior agreement of the instructor; borrowing experimental values from others without the instructor's approval; falsification/ fabrication of experimental values in a report. **These are only examples**.

e. **Academic Accommodation Policy:** Students needing an accommodation because of a disability or medical condition should contact Student Accessibility Services in accordance with the procedure for accommodations for students with disabilities available at procedure-for-accommodations-for-students-with-disabilities.pdf.

Students needing an accommodation in relation to their coursework or to fulfill requirements for a graduate degree, based on a protected ground other than disability, should communicate this need, preferably in writing, to the Associate Head of the Department of Mathematics & Statistics, Mark Bauer by email

bauerm@ucalgary.ca or phone 403-220-4189. Religious accommodation requests relating to class, test or exam scheduling or absences must be submitted no later than **14 days** prior to the date in question. See Section E.4 of the University Calendar.

f. **Freedom of Information and Privacy:** This course is conducted in accordance with the Freedom of Information and Protection of Privacy Act (FOIPP). Students should identify themselves on all written work by placing their name on the front page and their ID number on each subsequent page. For more information, see Legal Services website.

g. **Student Union Information:** VP Academic, Phone: 403-220-3911 Email: suvpaca@ucalgary.ca. SU Faculty Rep., Phone: 403-220-3913 Email: sciencerep@su.ucalgary.ca. Student Ombudsman, Email: ombuds@ucalgary.ca.

h. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction (USRI) survey and the Faculty of Science Teaching Feedback form provides valuable information to help with evaluating instruction, enhancing learning and teaching, and selecting courses. Your responses make a difference - please participate in these surveys.

i. **Copyright of Course Materials:** All course materials (including those posted on the course D2L site, a course website, or used in any teaching activity such as (but not limited to) examinations, quizzes, assignments, laboratory manuals, lecture slides or lecture materials and other course notes) are protected by law. These materials are for the sole use of students registered in this course and must not be redistributed. Sharing these materials with anyone else would be a breach of the terms and conditions governing student access to D2L, as well as a violation of the copyright in these materials, and may be pursued as a case of student academic or non-academic misconduct, in addition to any other remedies available at law.

Course Outcomes:

○ use the language and notion of differential calculus, and apply the key concepts to compute derivatives of functions of a real variable.

○ explore the relationship between key calculus concepts and their geometric representation, and seek to apply calculus techniques to a wide variety of practical problems

○ recognize that not only the technology can be used to achieve some desired results; but also it has limitations.

○ Mathematical Literacy This includes the fluent reading, manipulation, and graphic interpretation of algebraic expressions and functions

○ The concept of Limit Students will gain an intuition of the concept of limit, and acquire a basic level of mathematical literacy on limits and their computations

○ The concept of Derivative Students will be to associate the concept of differentiation with rates of change, and they will be able to compute and manipulate derivatives

○ Applications of Derivatives Students will be able to analyze the shape of functions through their derivatives. Students will use derivatives to solve a variety of applied problems, including optimization problems.

○ The Riemann Integral Students will explore the process of estimating areas under a curve, develop the notion of integral, and compute basic integrals. Students will be able to demonstrate the fundamental relations between the processes of integration and differentiation.

Electronically Approved - Apr 30 2020 12:45

Department Approval

Electronically Approved - May 12 2020 12:07

Associate Dean's Approval for arrangements for remote learning