

#### REVISED COURSE OUTLINE FOR REMOTE LEARNING

To account for the necessary transition to remote learning from March 13 onward, adjustments have been made to assessment deadlines and requirements so that all coursework tasks are in line with the necessary and evolving health precautions for all involved (students and staff). If you are unable to meet the deadlines or requirements specified, please connect with your course instructor to work out alternative dates/assessments.

#### 1. Course: MATH 249, Introductory Calculus - Winter 2020

Lecture 01: MTWF 13:00 - 13:50 - Remote Learning (check with your instructor or coordinator for details)

Instructor Phone Office Hours

MTWF 10:00-12:00 Dr Mohammed Aiffa aiffam@ucalgary.ca 403 220-6313 MS 432

Lecture 02: TWRF 16:00 - 16:50 - Remote Learning (check with your instructor or coordinator for details)

Instructor Office Phone

Wednesdays 17:00 - 18:00, Thursdays 12:30 Claudia Mahler claudia.mahler@ucalgary.ca 403 220-7717 MS 376

- 13:30

### Coordinator(s)

Name **Email Phone** Office Hours

Dr. Lauren DeDieu lauren.dedieu@ucalgary.ca 403 220-5056 MS 528 By appointment (on Zoom)

#### Course Site:

D2L: MATH 249 L01-(Winter 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 <u>F.1</u> and <u>F.2</u> 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	06	online				
Quizzes (Best 9 of 11)	09	Weekly (on WeBWorK)				
Midterm 1	20	Out of Class: February 26, 2020				
Midterm 2	30	Online: Mar. 30, 2020				
Midterm 3	35	Online: Apr. 27, 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+	В	B-	C+	U	Ċ	D+	D
Minimum % Required	95 %	90 %	85 %	80%	75%	70 %	65 %	60%	55%	50 %	45 %

2020-03-18 1 of 5 Bear in mind that a grade of **D** or lower will result if the student fails all three midterms. This is to ensure that those students who receive a **C-** or higher have a reasonable chance to succeed in courses that require this course as a prerequisite.

### 4. Missed Components Of Term Work:

The University has suspended requirements for students to provide evidence for reasons for absences so please do not attend medical clinics for medical notes or Commissioners for Oaths for statutory declarations. Please let your instructor know immediately if you are ill and cannot meet the deadlines specified.

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

The following out of class activities are scheduled for this course.

Activity	Location	Date and Time	Duration	
Midterm 1	KNB 126, KNB132, SB 103	Wednesday, February 26, 2020 at 7:00 pm	2 Hours	

**REGULARLY SCHEDULED CLASSES HAVE PRECEDENCE OVER ANY OUT-OF-CLASS-TIME-ACTIVITY.** If you have a conflict with the out-of-class-time-activity, please contact your course coordinator/instructor no later than **14 days prior** to the date of the out-of-class activity so that alternative arrangements may be made.

### 6. Course Materials:

Required Textbook(s):

Edwin Jed Herman & Gilbert Strang, Calculus 1: OpenStax. Joel Feldman, Andrew Rechnitzer, Elyse Yeager, CLP-I Differential Calculus and CLP-II Integral Calculus: http://www.math.ubc.ca/~CLP.

A link to the textbook will be posted on D2L

### 7. Examination Policy:

No aids are allowed on tests or examinations.

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  $\underline{\text{E.2}}$  of the University Calendar.

### 10. Human Studies Statement:

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

See also <u>Section E.5</u> 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 1.3 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

2020-03-18 2 of 5

b. **Final Exam:**The student shall submit the request to Enrolment Services. See <u>Section I.3</u> 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:** The Students Union Wellness Centre provides health and wellness support for students including information and counselling on physical health, mental health and nutrition. For more information, see <a href="https://www.ucalgary.ca/wellnesscentre">www.ucalgary.ca/wellnesscentre</a> or call <a href="https://www.ucalgary.ca/wellnesscentre">403-210-9355</a>.
- c. **Sexual Violence:** The University of Calgary is committed to fostering a safe, productive learning environment. The Sexual Violence Policy (<a href="https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf">https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf</a>) is a fundamental element in creating and sustaining a safer campus environment for all community members. We understand that sexual violence can undermine students' academic success and we encourage students who have experienced some form of sexual misconduct to talk to someone about their experience, so they can get the support they need. 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 (<a href="https://svsa@ucalgary.ca">svsa@ucalgary.ca</a>) or phone at <a href="https://svsa@ucalgary.ca">403-220-2208</a>.
- 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. **Assembly Points:** In case of emergency during class time, be sure to FAMILIARIZE YOURSELF with the information on <u>assembly points</u>.
- f. 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 <u>procedure-for-accommodations-for-students-with-disabilities.pdf</u>.

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.

- g. **Safewalk:** Campus Security will escort individuals day or night (See the <u>Campus Safewalk</u> website). Call <u>403-220-5333</u> for assistance. Use any campus phone, emergency phone or the yellow phones located at most parking lot pay booths.
- h. **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.
- i. **Student Union Information:** <u>VP Academic</u>, Phone: <u>403-220-3911</u> Email: <u>suvpaca@ucalgary.ca</u>. SU Faculty Rep., Phone: <u>403-220-3913</u> Email: <u>sciencerep@su.ucalgary.ca</u>. <u>Student Ombudsman</u>, Email: <u>ombuds@ucalgary.ca</u>.

2020-03-18 3 of 5

- j. **Internet and Electronic Device Information:** Unless instructed otherwise, cell phones should be turned off during class. All communication with other individuals via laptop, tablet, smart phone or other device is prohibited during class unless specifically permitted by the instructor. Students that violate this policy may be asked to leave the classroom. Repeated violations may result in a charge of misconduct.
- k. **Surveys:** At the University of Calgary, feedback through the Universal Student Ratings of Instruction (<u>USRI</u>) 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.

<u>Announcements:</u> Course announcements and other relevant material, will be available at the D2L course site. You are advised to visit the website regularly to check for new announcements and updates.

**Labs:** Homework problems will be posted weekly on D2L in the form of worksheets. You are responsible for finding out what problems have been assigned. Only selected problems from the worksheets will be solved during the weekly tutorial. Even though the homework problems are not collected, you should do as many of the assigned problems as possible. Experience shows that students who do little or no homework, usually don't do well in the course. Help is available from the Teaching Assistant, during the tutorials and from the Instructor during the office hours.

**Continuous Tutorial:** provides drop-in help for all first-year calculus courses. You may attend any time during the scheduled hours to ask guestions of the TA, or just to use the room as a place to work on calculus.

Assignments and homework are critical components of the course to help prepare you for the exams as well as help you self-assess your progress in the course.

# **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 - Mar 18 2020 09:41

# **Department Approval**

2020-03-18 4 of 5

 ${\bf Associate\ Dean's\ Approval\ for\ alternate\ final\ examination\ arrangements\ or\ remote\ learning\ and\ out\ of\ regular\ class-time\ activity}$ 

2020-03-18 5 of 5