

### **COURSE OUTLINE**

1. Course: MATH 267, University Calculus II - Winter 2021

Lecture 01: MWF 09:00 - 09:50 - Online

InstructorEmailPhoneOfficeHoursDr Mark Bauerbauerm@ucalgary.ca 403 210-8456MS 558TBA

Lecture 02: MWF 12:00 - 12:50 - Online

Instructor Email Phone Office Hours

Dr Jerrod Smith jerrod.smith@ucalgary.ca MS 442 By appointment (via Zoom)

### **Online Delivery Details:**

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.

To help ensure Zoom sessions are private, do not share the Zoom link or password with others, or on any social media platforms. Zoom links and passwords are only intended for students registered in the course. Zoom recordings and materials presented in Zoom, including any teaching materials, must not be shared, distributed or published without the instructor's permission.

This course has a registrar scheduled, synchronous final exam. The writing time is 1.3 hours + 50% buffer time.

The Monday lecture slot and the lab hour will be reserved for you to watch videos introducing various topic in the course, reading support material, and working problems. In order to maximize the live sessions, you will need to have completed these tasks by class on Wednesday.

There will be **live lecture sessions via Zoom** on Wednesdays and Fridays during the regular lecture times. The point of these sessions will not be to reteach the video content, but to help clarify concepts and work examples. We will focus on recapping key ideas, answering questions, and completing more challenging examples.

At least one of the two live sessions held on a given lecture day will be recorded and posted to D2L.

### **Course Site:**

D2L: MATH 267 L01-(Winter 2021)-University Calculus II

**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):

3 units from Mathematics 249, 265 or 275.

### Antirequisite(s):

Credit for Mathematics 267 and 277 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:

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Component(s)	Weighting %	Date
Checkpoint Quizzes (10 out of 12)	20%	
WeBWorK Assignments (5)	15%	
Term Exam 1	15%	Feb 8 18:30-20:30 (synchronous - total 2hrs with buffer time included)
Term Exam 2	20%	March 15 18:30-20:30 (synchronous - total 2hrs with buffer time)
Term Exam 3	20%	To be scheduled by Registrar (synchronous - total 2hrs with buffer time)
Elective Components	10%	

The 10% of elective components can be filled out by activities that are completed in the course, or by components that would be dropped (e.g. the 2 checkpoint quizzes out of the 12 that aren't inherently in your grade). Activities that will get credit include attempting practice midterms, syllabus/information quizzes, completing weekly checkpoints, and meaningful discussion board posts. Each of these activities will count as 1%.

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+	Α	A-	B+	В	B-	C+	С	C-	D+	D
Minimum % Required	95 %	88 %	84 %	80%	76%	72 %	68 %	64%	60%	55 %	50 %

This course will have a final exam that will be scheduled by the Registrar. The Final Examination Schedule will be published by the Registrar's Office approximately one month after the start of the term. The final exam for this course will be designed to be completed within 1.3 hours.

The final exam will be administered using an on-line platform. Per section G.5 of the online Academic Calendar, timed final exams administered using an on-line platform, such as D2L, will be available on the platform. Due to the scheduling of the final exams, the additional time will be added to **the end** of the registrar scheduled **synchronous** exam to support students. This way, your exam schedule accurately reflects the **start time** of the exam for any **synchronous** exams. E.g. If a **synchronous** exam is designed for 2 hours and the final exam is scheduled from 9-11am in your student centre, the additional time will be added to the **end** time of the **synchronous** exam. This means that if the exam has a 1 hour buffer time, a synchronous exam would start at 9 am and finish at 12pm. – **updated April 6, 2021** 

## 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, or the course instructor if this course does not have a 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:

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

Activity	Location	Date and Time	Duration
Term Exam 1	Online	Monday, February 8, 2021 at 6:30 pm	2 Hours
Term Exam 2	Online	Monday, March 15, 2021 at 6:30 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.

The exams are synchronous and designed to take 1.3 hrs to complete but 2 hrs will be given to include the buffer time.

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#### 6. Course Materials:

Required Textbook(s):

Feldman, Rechnitzer, & Yeager, *CLP-2 Integral Calculus*: Open Source. Feldman, Rechnitzer, & Yeager, *CLP-3 Multivariable Calculus*: Open Source.

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:

- A computer with a supported operating system, as well as the latest security, and malware updates;
- A current and updated web browser;
- Webcam/Camera (built-in or external);
- Microphone and speaker (built-in or external), or headset with microphone;
- Current antivirus and/or firewall software enabled:
- Stable internet connection.

For more information please refer to the UofC <u>ELearning</u> online website.

## 7. Examination Policy:

The 3 term exams will be tied to the different learning modules in the course. The exams will be written synchronously and are created to be completed in 1.3 hours, but you will be given 2 hours to complete the synchronous portion of the exam to deal with any technical/other difficulties. In addition, there will be a written portion of the exam that you will have 24 hours to complete. The entire exam (written and synchronous) is designed to be completed in under 2 hours.

The exams are to be completed by yourself without help from peers or homework answer services (like Chegg, Slader, etc.).

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

Students should also read the Calendar, <u>Section G</u>, 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 <u>I.1</u> and <u>I.2</u> of the University Calendar
- 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:

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- 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 Services:** 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 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="mailto:svsa@ucalgary.ca">svsa@ucalgary.ca</a>) or phone at <a href="mailto:403-220-2208">403-220-2208</a>. The complete University of Calgary policy on sexual violence can be viewed at (<a href="mailto:https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf">https://www.ucalgary.ca/policies/files/policies/sexual-violence-policy.pdf</a>)
- d. Misconduct: Academic integrity is the foundation of the development and acquisition of knowledge and is based on values of honesty, trust, responsibility, and respect. We expect members of our community to act with integrity. Research integrity, ethics, and principles of conduct are key to academic integrity. Members of our campus community are required to abide by our institutional <a href="Code of Conduct">Code of Conduct</a> and promote academic integrity in upholding the University of Calgary's reputation of excellence. Some examples of academic misconduct include but are not limited to: posting course material to online platforms or file sharing without the course instructor's consent; submitting or presenting work as if it were the student's own work; submitting or presenting work in one course which has also been submitted in another course without the instructor's permission; borrowing experimental values from others without the instructor's approval; falsification/fabrication of experimental values in a report. Please read the following to inform yourself more on academic integrity:

Student Handbook on Academic Integrity
Student Academic Misconduct Policy and Procedure
Research Integrity Policy

Additional information is available on the Student Success Centre Academic Integrity page

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 <a href="mailto:procedure-for-accommodations-for-students-with-disabilities.pdf">procedure-for-accommodations-for-students-with-disabilities.pdf</a>.

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 <u>Legal Services</u> website.
- g. **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>.
- h. **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

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available at law.

### **Course Outcomes:**

- use the language and notion of integral calculus, and apply the key concepts to compute integrals of functions of several real variables.
- 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.
- Techniques of Integration. Students will be able to calculate indefinite integrals using techniques covered in the course.
- Applications of Integration. Students will be able to set up and calculate an appropriate definite integral in order to evaluate the volume of a solid, the length of a curve, and the area of a surface of revolution
- Partial Differentiation and Double Integration. Students will be able to explain the notion of a function of several variables, its graph, cross -sections, and level curves/surfac es. Students will be able to evaluate partial derivatives and double integrals, and will be able to demonstrate the geometric significance of these concepts
- Sequences and Series. Students will be able to identify sequences and series, determine convergence by applying a suitable test or theorem covered in the course and contrast between absolute and conditional convergence. Students will be able to determine a Taylor series, analyze the error of Taylor polynomial approximations and compute the radius and interval of convergence of a power series

Electronically Approved - Apr 07 2021 10:36

## **Department Approval**

Electronically Approved - Apr 07 2021 11:44

## **Associate Dean's Approval**

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