UNIVERSITY OF CALGARY
FACULTY OF SCIENCE

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

COURSE OUTLINE

1. **Course:** MATH 275, Calculus for Engineers and Scientists - Fall 2022

   Coordinator(s)

Name	Email	Phone	Office	Hours
Dr Mark Bauer	bauerm@ucalgary.ca	403 210-8456	MS 558	W 11:00-11:50, R 11:30-12:30, and by appointment

   Section(s)

   Lecture 01 : F 08:00 - 09:50 in ICT 217 and R 08:00 - 08:50 in ICT 217

Instructor	Email	Phone	Office	Hours
Dr Kristine Bauer	bauerk@ucalgary.ca	220-7675	MS 578	TBA

   Lecture 02 : F 10:00 - 11:50 in ICT 114 and R 11:00 - 11:50 in ICT 114

Instructor	Email	Phone	Office	Hours
Dr Kristine Bauer	bauerk@ucalgary.ca	220-7675	MS 578	TBA

   Lecture 03 : W 08:00 - 09:50 in ENG 03 and T 08:00 - 08:50 in ENG 03

Instructor	Email	Phone	Office	Hours
Claudia Mahler	claudia.mahler@ucalgary.ca	403 220-7717	MS 376	Fridays 12:00 - 1:30

   Lecture 04 : W 10:00 - 11:50 in ENG 224 and T 11:00 - 11:50 in ENG 224

Instructor	Email	Phone	Office	Hours
Claudia Mahler	claudia.mahler@ucalgary.ca	403 220-7717	MS 376	Fridays 12:00 - 1:30
Erik Holmes	TBA	TBA	TBA	TBA

   Lecture 05 : F 10:00 - 11:50 in ENE 123 and 10:00 - 11:50 in ENE 127 and R 11:00 - 11:50 in ENE 123 and 11:00 - 11:50 in ENE 127

Instructor	Email	Phone	Office	Hours
Dr Mark Bauer	bauerm@ucalgary.ca	403 210-8456	MS 558	W 11:00-11:50, R 11:30-12:30, and by appointment

   Lecture 06 : F 13:00 - 14:50 in ICT 217 and R 13:00 - 13:50 in ICT 217

Instructor	Email	Phone	Office	Hours
Dr Mark Bauer	bauerm@ucalgary.ca	403 210-8456	MS 558	W 11:00-11:50, R 11:30-12:30, and by appointment

   Lecture 07 : F 15:00 - 16:50 in ICT 114 and R 16:00 - 16:50 in ICT 114

Instructor	Email	Phone	Office	Hours

   Lecture 08 : W 13:00 - 14:50 in ENG 03 and T 13:00 - 13:50 in ENG 03

Instructor	Email	Phone	Office	Hours

   Lecture 09 : W 15:00 - 16:50 in ENG 224 and T 16:00 - 16:50 in ENG 224

Instructor	Email	Phone	Office	Hours
Erik Holmes	TBA	TBA	TBA	TBA
Dr Jerrod Smith	jerrod.smith@ucalgary.ca	403 220-6766	MS 442	Please see D2L.

   Lecture 10 : F 15:00 - 16:50 in ENE 123 and 15:00 - 16:50 in ENE 127 and R 16:00 - 16:50 in ENE 123 and 16:00 - 16:50 in ENE 127

Instructor	Email	Phone	Office	Hours
Dr Jerrod Smith	jerrod.smith@ucalgary.ca	403 220-6766	MS 442	Please see D2L.

   Lecture 11 : W 15:00 - 16:50 in ENC 201 and T 16:00 - 16:50 in ENC 201

Instructor	Email	Phone	Office	Hours
Illya Ivanov	TBA	TBA	TBA	TBA

   Lecture 12 : W 10:00 - 11:50 in ENC 201 and T 11:00 - 11:50 in ENC 201

Instructor	Email	Phone	Office	Hours
Illya Ivanov	TBA	TBA	TBA	TBA

To account for any necessary transition to remote learning for the current semester, courses with in-person lectures, labs, or tutorials may be shifted to remote delivery for a certain period of time. In addition, adjustments may be made to the modality and format of assessments and deadlines, as well as to other course components and/or requirements, so that all coursework tasks are in line with the necessary and evolving health precautions for all involved (students and staff).

In Person Delivery Details:

1. Active Learning (in Groups) will take place every Wednesday or Friday, depending on which block you're in.

2. For Tuesday/Thursday classes :

    (i) Material of weekly recorded lectures will be discussed

    (ii) Diagnose students difficulty (If any)

    (iii) Possible material/problem presentation

    (iv) Respond to all questions that may arise from the discussion

Re-Entry Protocol for Labs and Classrooms:

To limit the spread of COVID-19 on campus, the University of Calgary has implemented safety measures to ensure the campus is a safe and welcoming space for students, faculty and staff. The most current safety information for campus can be found here.

Course Site:

D2L: MATH 275 All -(Fall 2022)-Calculus for Engineers and Scientists

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

Equity Diversity & Inclusion:

The University of Calgary is committed to creating an equitable, diverse and inclusive campus, and condemns harm and discrimination of any form. We value all persons regardless of their race, gender, ethnicity, age, LGBTQIA2S+ identity and expression, disability, religion, spirituality, and socioeconomic status. The Faculty of Science strives to extend these values in every aspect of our courses, research, and teachings to better promote academic excellence and foster belonging for all.

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); and Mathematics 31 or Mathematics 3 (offered by Continuing Education).

Antirequisite(s):
Credit for Mathematics 275 and either 249 or 265 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:

Course Component	Weight	Due Date (duration for exams)	Modality for exams	Location for exams
Assignments (4)[1]	30%	Ongoing		
Weekly Quizzes (best 8 of 10)[2]	10%	Ongoing		
Midterm[3]	20%	Nov 02 2022		
Registrar Scheduled Final Exam	40%	Will be available when the final exam schedule is released by the Registrar	in person	Will be available when the final exam schedule is released by the Registrar

[1] Assignments completed through WeBWorK. Due dates are Oct. 11, Oct. 31, Nov. 28, Dec. 9.

[2] Weekly quizzes will be done through WeBWorK. Due dates are Sept. 17, 24, Oct. 4, 8, 15, 22, 29, Nov. 19, 26, Dec. 3. Best 8 out of 10 will count toward your grade.

[3] in-person

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 will have a Registrar Scheduled Final exam that will be delivered in-person and on campus. 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 2 hours.

A Passing Grade in the Final Examinations is Required to Obtain a Grade of " D " or Better in the Course.

The University of Calgary offers a flexible grade option, Credit Granted (CG) to support student's breadth of learning and student wellness. Faculty units may have additional requirements or restrictions for the use of the CG grade at the faculty, degree or program level. To see the full list of Faculty of Science courses where CG is not eligible, please visit the following website: https://science.ucalgary.ca/current-students/undergraduate/program-advising/flexible-grading-option-cg-grade

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, one possible arrangement is that the percentage weight of the legitimately missed assignment could also be pro-rated among the components of the course. This option is at the discretion of the coordinator and may not be a viable option based on the design of this course.

If you miss a WeBWork Assignment deadline...

- **No extensions will be granted** barring exceptional circumstances (see below: (*)).
- It is your responsibility to keep up with the WeBWork Assignment deadlines.
- Do not leave your WeBWork to the last day -- they are designed to be completed a week before the deadline.
- (*) If exceptional circumstances (e.g., extended illness, emergency, etc.) arise: contact your coordinator by email within 48 hours of the assignment deadline. Accommodations in exceptional circumstances will be made on a case-by-case basis.

If you miss a quiz ...

- That is okay! You can miss up to two (2) quizzes throughout the semester.
- The two lowest quiz grades will be dropped, so if you miss up to (2) quizzes then these are the scores that we will drop.

If you miss a midterm ...

- If you are sick or otherwise excused from the midterm exam, there will be a make-up exam offered on Monday, Nov. 14.

- To request an excused absence from the midterm exam, you must e-mail the course coordinator (bauerm@ucalgary.ca) within 48 hours of the midterm exam.

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

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

Activity	Location	Date and Time	Duration
Midterm Exam	TBD	Wednesday, November 2, 2022 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):

Matthew Boelkins, *Active Calculus*: Matthew Boelkins, open source.

Recommended Textbook(s):

Feldman, Rechnitzer, Yeager, *CLP-1 & 2*: Open access eBook http://www.math.ubc.ca/~CLP.

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 [ELearning](#) online website.

7. **Examination Policy:**

   Midterm and Final Exams

   No aids are allowed on tests or examinations.

   All exams will be completed individually (on your own, and without help from your peers).

   There are no electronic devices of any kind permitted in the examination rooms for the midterms and the final examination. This includes, but is not limited to, calculators, phones, smart watches, tablets, laptops, headphones and any bluetooth-enabled device. Failure to comply with this regulation will result in the rejection of the examination paper.

   WeBWork Homework and Quizzes

   Here are our expectations for how you should approach Academic Integrity on WeBWork Assignments and Lab Tasks.

   In particular, we want to make very clear when aids (notes, videos, internet resources etc.) are allowed and when they are not!

   WeBWork Homework Expectations

   - WeBWork is intended to help you practice fundamental (basic) computational and theoretical problems You should discuss WeBWork Assignments with your peersUse the WeBWork Homework Discussion Boards
   - **You may NOT use**: homework answer services, like Chegg.com, Slader, etc.
   - We recommend that you do NOT use: (online) computer algebra systems likeWolfram Alpha, Mathematica, etc.; the point is to assess your skills, and NOT to assess Wolfram Alpha (etc.).

   Weekly Quiz Expectations

   Quizzes are intended to help you assess your understanding of fundamental concepts and challenging examples.

   You should complete Lab Tasks on your own, and without help from your peers.

   - You may re-watch the topic videos as you complete the Quizzes
   - You may refer to the notes you've taken, problems you've worked from the active learning sessions, course slides, or the course textbook
   - **You may NOT use**: homework answer services, like Chegg.com, Slader, etc.
   - We recommend that you do NOT use: (online) computer algebra systems likeWolfram Alpha, Mathematica, etc.; the point is to assess your understanding, and NOT to assess Wolfram Alpha (etc.).

   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 Services:** For more information, see their [website](#) 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 [here.](#)

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 [Code of Conduct](#) 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](#)
[Faculty of Science Academic Misconduct Process](#)
[Research Integrity Policy](#)

Additional information is available on the[Student Success Centre Academic Integrity page](#)

e. **Academic Accommodation Policy:**

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The student accommodation policy can be found at: [https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Student-Accommodation-Policy.pdf](#)

Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities: [https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf.](#)

Students needing an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, by filling out the [Request for Academic Accommodation Form](#) and sending it to Mark Bauer by email [bauerm@ucalgary.ca](#) preferably 10 business days before the due date of an assessment or scheduled absence.

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:** [SU contact](#), Email SU Science Rep: [sciencerep1@su.ucalgary.ca](#), [Student Ombudsman](#)

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:

- Adapt to the language and notion of calculus.
- Develop an understanding of the key concepts of calculus and use it to compute Limits, Derivatives, and Integrals of appropriate real valued functions of a single real variable
- Perform calculus techniques to solve a wide variety of practical problems
- Analyze appropriate real-world problems in interdisciplinary fields.
- Explore the relationship between key calculus concepts and its geometric representation for an enhanced interpretation of certain physical or natural Property.
- Recognize that not only the technology can be used to achieve some desired results; but also it has limitations.

Electronically Approved - Sep 01 2022 15:21

Department Approval

Electronically Approved - Sep 15 2022 16:13

Associate Dean's Approval