UNIVERSITY OF CALGARY
FACULTY OF SCIENCE

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

## COURSE OUTLINE

1. **Course:** MATH 211, Linear Methods I - Spring 2021

   Lecture 01: MWF 14:00 - 15:50 - Online

| Instructor | Email | Phone | Office | Hours |
|---|---|---|---|---|
| Dr Kexue Zhang | kexue.zhang@ucalgary.ca | TBA | ZOOM | Mon 16:00-17:00; Wed 16:00-17:00; Fri 16:00-17:00 |

   Lecture 02: MW 18:00 - 20:45 - Online

| Instructor | Email | Phone | Office | Hours |
|---|---|---|---|---|
| Dr Zafer Aygin | zaferselcuk.aygin@ucalgary.ca | TBA | ONLINE | MW 17:00-18:00 |

   **Online Delivery Details:**

   This course does not follow a scheduled meeting pattern.

   This course has a registrar scheduled, synchronous final exam. The writing time is 2 hours + 50% buffer time.

   For the online version of the course we offer the following online course components:

   **1. Two *optional* live lecture sessions, covering the same material:**

   - Session 1: MWF 14:00 - 15:50 (instructor: Dr. Zhang)
   - Session 2: MW 18:00 - 20:45 (instructor: Dr. Aygin)

   **2. Online instructor office hours:**

   - MWF 16:00 - 17:00 (instructor: Dr. Zhang)
   - MW 17:00 - 18:00 (instructor: Dr. Aygin)

   **3. D2L site**

   - Includes daily "roadmap" to assist student progress through the course.

   **4. Discussion Board on D2L**

   - Monitored regularly by TAs.

   **5. Pre-recorded problem demonstration videos**

   - Available on D2L.

   **6. Dedicated email address for administrative matters**

   - math211@ucalgary.ca
   - All administrative aspects of the course (illness, SAS, time zones, and other admin inquiries)

   **The optional live lectures will be recorded and can be viewed at any time, participation is not necessary.**

   The D2L course site will provide a daily "roadmap" to assist student progress through the course, including: daily news updates, specific objectives, available material and activities organized by topics, detailed information on assessment and examinations, including a practice exam so students can familiarize themselves with the system, suggestions on how to succeed in the online version of the course.

   **Course Site:**

   D2L: MATH 211 L01-(Spring 2021)-Linear Methods I

   **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):**
Credit for Mathematics 211 and 213 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:

| Components | Weighting (%) | Date |
|---|---|---|
| Examination 1 | 30 | Thursday May 27, 18:00 to Friday May 28, 18:00 |
| Examination 2 | 30 | During registrar scheduled period |
| Online Assignments (5) | 30 | Ongoing |
| Written Submissions (5) | 10 | Ongoing |

**Examinations:** Each examination is synchronous and designed for 120 minutes, and we will grant an additional 50% time for a total of 180 minutes (3 hours) to accommodate any technical or other online examination issues. Thus everyone must start within the first 21 hours of the examination period (3 pm on Friday, May 28, 2021), and has 180 minutes to complete the examination from the time they start.

**Online Assignments:** There are 5 online assignments each with its own a due date.

**Written Submissions:** With each Online Assignment you will be asked to submit your written work for certain questions. This submission does not have to be rigorously written; we just want to see your process for solving certain questions. For each assignment, this component will be graded on a pass/fail basis. If you submit something regarding your solutions (this can be your notes, calculations, output of a computer program you are using etc.) you will receive credit; if there is nothing related to the solutions in your submission you will not receive credit. This grade is separate from your mark for the Online Assignments, and will be independently marked.

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 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 2 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.

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.

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

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

| Activity | Location | Date and Time | Duration |
|---|---|---|---|
| Examination 1 | Web-Based | Thursday, May 27, 2021 at 6:00 pm | 3 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.

Examination 1 will stay open for 24 hours. In order to use all 3 hours given start before 3 pm on Friday, May 28, 2021.

6. **Course Materials:**

Recommended Textbook(s):

K. Kuttler (redesigned by the Lyryx editorial team) , *A First Course in Linear Algebra*: Lyryx .

Suggested: A (free) open text in electronic form is available in your Lyryx account. It can be freely distributed and printed.

**Assignments and Examinations**

We will be using the Lyryx system for online assignment purposes, offering formative online assessment in an effort to support student learning. The student license is normally $39.95+GST payable upon registration on the Lyryx system. **Lyryx is able to provide complimentary individual licenses to students who have a financial concern, as students should not be coming to campus to utilize the free access that is available. Please contact the Associate Head, Teaching & Learning bauerm@ucalgary.ca for more information.** Any communication about this will remain strictly confidential.

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:**

- You can do these exams from anywhere you find comfortable, free of distractions, but entirely on your own.
- You can use any of your course material: D2L course site, lecture notes, text, your own notes, and basic handheld calculator.
- However after accessing the examination, the Lyryx system will be in "examination mode" and you will be unable to access other Lyryx pages, including assignments. Attempting to do so, or login to Lyryx again from anywhere, may cancel your exam.
- Other than the Web browser you are using for the examination, no computer applications are to be open during the examination. Accessing any other websites (except D2L) or opening other computer applications constitutes academic misconduct as defined under the University of Calgary Academic Integrity Policy.

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 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 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
       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 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:**

- Recognize which techniques of linear algebra that can be useful in solving or provide information to some problems from various areas
- Construct a plan on how to approach these problems using the techniques of linear algebra
- Execute the proposed plan correctly from the viewpoint of computation and mathematics
- Interpret the resulting information in the context of the problem at hand

Electronically Approved - May 04 2021 11:40

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**Department Approval**

Electronically Approved - May 04 2021 15:14

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**Associate Dean's Approval**