



COURSE OUTLINE

1. **Course:** MATH 211, Linear Methods I - Winter 2022

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

Instructor	Email	Phone	Office	Hours
Dr Gilad Gour	gour@ucalgary.ca	403 220-3939	MS 320	Wednesdays 3:00pm-4:30pm

Lecture 02 : MWF 11:00 - 11:50 in ENA 101

Instructor	Email	Phone	Office	Hours
Andreas Bode	TBA	TBA	TBA	TBA

Lecture 03 : MWF 16:00 - 16:50 in MFH 164

Instructor	Email	Phone	Office	Hours
Dr Thi Dinh	tdinh@ucalgary.ca	403 220-2214	MS 420	MWF 11:00 - 12:00

Lecture 04 : TR 09:30 - 10:45 in MFH 164

Instructor	Email	Phone	Office	Hours
Dr Mohammed Aiffa	aiffam@ucalgary.ca	403 220-6313	MS 432	10:00-12:00

To account for any necessary transition to remote learning in the winter 2022 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).

Online Delivery Details:

This course is being offered online in real-time via scheduled meeting times, 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 24 hours + 50% buffer time.

We offer the following course components:

1. Live online class:

- L01: Meets on **MWF 2:00pm-2:50pm** on Zoom (instructor: Gilad Gour)

These live lectures will also be recorded and can be watched at any time.

2. In-person classes:

- L02: Meets on **MWF 11:00am-11:50am** in ENA 101 (instructor: Andreas Bode)
- L03: Meets on **MWF 4:00pm-4:50pm** in MFH 164 (instructor: Thi Dinh)
- L04: Meets on **TR 9:30am-10:45am** in MFH 164 (instructor: Mohammed Aiffa)

All lectures (both online and in-person) are optional. Yet you are strongly encouraged to attend lectures (either the live online ones or the recorded ones or the in-person ones); instructors will not only guide you through the material, but may also coach you on how to study and prepare for exams, make the most of your time, and more generally help you with being a student at the University. **All sessions cover the same material**, so you can choose to attend any one of them.

3. Discussion board (D2L)

You can ask any mathematical questions, follow other student questions, help each other by answering any questions you may know,

- Monitored by Teaching Assistant 7 days week

4. Online Live Labs

Everyday on M,Tu,W,Th,F at 5pm-6pm a TA will conduct online "problem session".

During that time the TA may work on selected problems in more detail, and this is an opportunity for you to ask questions.

5. Mobile Application

The Lyryx Mobile App is designed to turn learning into an engaging activity. The content is presented into small blocks, or "chunks", and each chunk contains an interactive randomized question. See [Lyryx Mobile App](#)

Completing these questions is mandatory. 10% of the course grades is awarded for successfully completing the question on each chunk!

6. Teaching Assistant Online Office Hours

These will provide you with an opportunity to talk to and ask any questions to a (real) person!

The tentative schedule is as follows (see under "*Communication / Zoom*"):

- TR 12:00-13:30
- MWF 16:00-16:50

7. D2L course site

Includes access to all material and online assessment.

Includes weekly detailed and clear "roadmap" to assist student progress through the course.

8. Prerecorded problem demonstration videos

Detailed video presentations of typical course exercises.

9. Email support for administrative matters

math211@ucalgary.ca

This email is dedicated to administrative aspects of the course, including illness, SAS, time zones, and other admin inquiries.

Course Site:

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

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

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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).

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:

Course Component	Weight	Due Date (duration for exams)	Modality for exams	Location for exams
Mobile App Active Learning ¹	10%	Ongoing		
Online Assignments (10) ²	15%	Ongoing		
Examination 1 ³	25%	Feb 07 2022 at 06:00 pm (1 Days)	online	Online
Examination 2 ⁴	25%	Mar 21 2022 at 06:00 pm (1 Days)	online	Online
Registrar Scheduled Final Exam	25%	Will be available when the final exam schedule is released by the Registrar	online	Will be available when the final exam schedule is released by the Registrar

¹ Ongoing

² Due dates listed in course schedule

³ Timed assessment: Available starting 6pm Feb. 7 and must be submitted by 6pm Feb.8

⁴ Timed assessment: Available starting 6pm March 21 and must be submitted by 6pm March 22

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%	75%	70 %	65 %	60%	55%	50 %	45 %

This course will have a Registrar Scheduled Final exam that will be delivered on-line. [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 24 hours.

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.

Each of the three examination is asynchronous and designed for 100 minutes, and an additional 50% time buffer is granted for a total of 150 minutes (2 ½ hours) to accommodate any technical or other online examination issues. Students can start anytime after 6pm of the opening day and submitted before 6pm of the closing day. Note that the exam is due at 6pm of the closing day and hence everyone must start before 3:30pm to benefit from the full 150 minutes allocation. Additional time will be granted to SAS students, and other accommodation will be done on a case-by-case basis. All students need to contact the coordinator at least 14 days prior to the examination to arrange for accommodations.

Each piece of work (Mobile App, assignments, and examinations) 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. 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 University of Calgary offers a [flexible grade option](https://science.ucalgary.ca/current-students/undergraduate/program-advising/flexible-grading-option-cg-grade), 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.

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	Monday, February 7, 2022 at 6:00 pm	2 1/2 Hours
Examination 2	Web-Based	Monday, March 21, 2022 at 6:00 pm	2 1/2 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.

There are two out of class activities:

Examination 1 Timed Web-Based: Available starting Monday, February 7 at 6pm and must be submitted by Tuesday, February 8, 6pm at the latest.

100 minutes + 50% buffer= 2 1/2 hours

Examination 2 Timed Web-Based: Available starting Monday, March 21 at 6pm and must be submitted by Tuesday, March 22, 6pm at the latest

100 minutes + 50% buffer= 2 1/2 hours

6. **Course Materials:**

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

Mobile App, Assignments and Examinations We will be using the Lyryx system for active learning, online assignment and examination 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 offering students access to their Lyryx online homework at no cost when using University computers, including in the MS 317, MS 515, MS 521, and MS 571 computer labs. Access to Lyryx online homework for no charge is also available at the TFDL, but currently only on Mac computers; access may be available sporadically in ES 160.

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

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:**

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 [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](tel: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 (syva@ucalgary.ca) or phone at [403-220-2208](tel:403-220-2208). The complete University of Calgary policy on sexual violence can be viewed at (<https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Sexual-and-Gender-Based-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:

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:** [VP Academic](#), Phone: [403-220-3911](tel:403-220-3911) Email: suvpaca@ucalgary.ca. SU Faculty

Rep., Phone: [403-220-3913](tel: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 - Jan 04 2022 15:33

Department Approval

Electronically Approved - Jan 10 2022 10:48

Associate Dean's Approval