

Math 1600 Linear Algebra I: Course Outline

1. Course Information

Course Information

[Mathematics 1600A Linear Algebra I, Fall semester 2021.](#)

List of Prerequisites

One or more of Ontario Secondary School MCV4U, Mathematics 1229A/B, Calculus 1000A/B or Calculus 1500A/B. Calculus 1000A/B

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

2. Instructor Information

Instructors	Email	Office	Phone	Office Hours
Dr. D. Jeffrey (section 001) (Course Coordinator)	Math1600@uwo.ca	MC252	88776	F 4:30-5:30
Dr. K. Adamyk (section 002)	kadamyk@uwo.ca	MC120		F 4:30-5:30

Students must use their Western (@uwo.ca) email addresses when contacting their instructors, and use the addresses posted above. Office hours are listed above.

3. Course Syllabus, Schedule, Delivery Mode

The properties and applications of vectors; matrix algebra; solving systems of linear equations; determinants; vector spaces; orthogonality; eigenvalues and eigenvectors. A schedule can be found in the lessons tab on the owl site.

Learning outcomes:

- Understand consistent and inconsistent equations.
- Understand number of solutions of given set of linear equations.
- Understand concept of Vector Space.

- Understand orthogonality.
- Understand concept of eigenvector.

Schedule:

Section 001: lecture	8:30--9:30	SH 3345	Monday, Wednesday, Friday.
Section 002: lecture	10:30-11:30	NCB 113	Monday, Wednesday, Friday.
Section 003: lab	8:30--9:30	UCC 59	Wednesday
Section 004: lab	11:30-12:30	UCC 1225	Wednesday
Section 005: lab	12:30-13:30	NCB 293	Wednesday
Section 006: lab	13:30-14:30	MC 17	Wednesday
Section 007: lab	14:30-15:30	PAB 150	Wednesday
Section 008: lab	12:30-13:30	UCC 59	Thursday
Section 009: lab	13:30-14:30	MC 17	Thursday
Section 010: lab	14:30-15:30	UCC 54B	Thursday
Section 011: lab	15:30-16:30	MC 17	Thursday
Section 012: lab	16:30-17:30	UCC 59	Thursday

Week	Dates	Lectures #	Sections in Text
1	Sept 8 -- 10	1, 2	1.1, 1.2
2	Sept 13 -- 17	3, 4, 5	1.2, 1.3
3	Sept 20 -- 24	6, 7, 8	2.1, 2.2
4	Sept 27 -- Oct 1	9, 10, 11	2.3, 3.1
5	Oct 4 -- 8	12, 13, 14	3.2, 3.3, 3.5
6	Oct 11 -- 15	15, 16, 17	3.5, 3.6
7	Oct 18 -- 22	18, 19, 20	3.6, 3.7
8	Oct 25 -- 29	21, 22, 23	4.1, Append C
	Nov 1 -- 5	Reading week	
9	Nov 8 -- 12	24, 25, 26	4.2, 4.3
10	Nov 15 -- 19	27, 28, 29	4.4, 5.1
11	Nov 22 -- 26	30, 31, 32	5.2,
12	Nov 29 -- Dec 3	33, 34, 35	7.3
13	Dec 6 -- 8	36, 37	Review



Useful dates:

Classes begin: September 8, 2021

Reading Week: November 1–7, 2021

Last day to withdraw without academic penalty: November 12.

Classes end: December 8, 2021

Contingency plan for an in-person class pivoting to 100% online learning

In the event of a COVID-19 resurgence during the course that necessitates the course delivery moving away from face-to-face interaction, all remaining course content will be delivered entirely online, either

synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor.

4. Course Materials

Textbook: David Poole, *Linear Algebra – a modern introduction*. 4th edition (but 3rd is similar and may be cheaper). There is an electronic version available from cengage.ca or cengage.com.

Students are responsible for checking the course OWL site (<http://owl.uwo.ca>) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class.

All course material will be posted to OWL: <http://owl.uwo.ca>.

If students need assistance with the course OWL site, they can seek support on the OWL Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

Technical Requirements

A computer and internet connection, in order to access Webwork, is recommended. If this is not possible, the university supplies computers in “Genlabs”, which are rooms containing computers.

5. Methods of Evaluation

The overall course grade will be calculated as listed below:

Midterm 1	15 %
Midterm 2	15 %
Webwork	15 %
Tutorial quizzes	5 %
Final Exam	50 %

Midterm 1 will take place on Thursday October 14, 7:00—8:30

Midterm 2 will take place on Thursday November 18 7:00—8:30

Accommodated Evaluations

If you miss a midterm (for a valid reason) the weights of the exams will be shifted as follows:

Missing midterm 1 (for a valid reason) will result in its weight being shifted to midterm 2.

Missing midterm 2 (for a valid reason) will result in its weight being shifted to the final.

6. Student Absences

Academic Consideration for Student Absences

Students who experience an extenuating circumstance (illness, injury or other extenuating circumstance) sufficiently significant to temporarily render them unable to meet academic requirements may submit a request for academic consideration through the following routes:

- (i) Submitting a Self-Reported Absence (SRA) form provided that the conditions for submission are met. To be eligible for a Self-Reported Absence:
 - an absence must be no more than 48 hours
 - the assessments must be worth no more than 30% of the student's final grade
 - no more than two SRAs may be submitted during the Fall/Winter term
- (ii) For medical absences, submitting a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner to the Academic Counselling office of their Faculty of Registration.
- (iii) Submitting appropriate documentation for non-medical absences to the Academic Counselling office in their Faculty of Registration.

Note that in all cases, students are required to contact their instructors within 24 hours of the end of the period covered, unless otherwise instructed in the course outline.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.**

For the policy on Academic Consideration for Student Absences – Undergraduate Students in First Entry Programs, see:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_illness.pdf

and for the Student Medical Certificate (SMC), see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Counselling office of their Faculty of Registration. Please consult University's list of recognized religious holidays (updated annually) at

<https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>.

Absences from Final Examinations

If you miss the Final Exam, please contact the Academic Counselling office of your Faculty of Registration as soon as you are able to do so. They will assess your eligibility to write the Special Examination (the name given by the University to a makeup Final Exam).

You may also be eligible to write the Special Exam if you are in a “Multiple Exam Situation” (e.g., more than 2 exams in 23-hour period, more than 3 exams in a 47-hour period).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See the Academic Calendar for details (under [Special Examinations](#)).

6. Accommodation and Accessibility

Accommodation Policies

Students with disabilities work with Accessible Education (formerly SSD), which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf,

7. Academic Policies

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

In accordance with policy,

https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf,

the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

Calculators are not allowed in the midterms or final examination.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Computer-marked multiple-choice tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Remote Proctoring Software may be used in this course in the event of health lock-down

Tests and examinations in this course will be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at:

<https://remoteproctoring.uwo.ca>.

8. Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <https://www.uwo.ca/sci/counselling/>.

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education at (519) 661-2147 if you have any questions regarding accommodations.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: <https://www.uwo.ca/se/digital/>.

Learning-skills counsellors at the Student Development Centre (<http://www.sdc.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to Mental Health@Western (<http://www.health.uwo.ca/mentalhealth>) for a complete list of options about how to obtain help.

Additional student-run support services are offered by the USC, <http://westernusc.ca/services>.