

Mathematics 1700B Course Outline

1. Course Information

Course Information

Mathematics 1700B, Winter 2025, Linear Algebra I for the Mathematical Sciences, XXX, three 1h tutorials Thu between 11:30am and 2:30pm, XXX.

List of Prerequisites

One of Mathematics 1120A/B (recommended), Calculus 1000A/B or Calculus 1500A/B with a minimum mark of 70% in the case of Calculus 1000A/B or Calculus 1500A/B.

Unless you have either the requisites for this course or written special permission from your Dean's Designate (Department/Program Counsellors and Science Academic Advisors) 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@uwo.ca	Office	Phone	Office Hours
Prof. Matthias Franz	mfranz	MC 103D	x 86538	TBA
TA TBA				

Students must use their Western (@uwo.ca) email addresses when contacting their instructors. The course number (Math 1700B) must be included in the subject line. The email must adhere to professional standards (proper salutation, complete sentences, correct English etc.).

Office hours (2h/week) will be held in person, details TBA. In case of an ongoing pandemic (flu, covid, etc.), office hours may be conducted online.

3. Course Syllabus, Schedule, Delivery Mode

Syllabus: An enriched version of Mathematics 1600A/B. Complex numbers and the integers modulo a prime; vectors, lines, planes; solving linear systems; spanning sets and linear independence; matrix algebra; elementary matrices; subspaces, bases, dimension and rank; introduction to linear transformations; determinants; eigenvalues and eigenvectors; similarity and diagonalization; Markov chains and other applications.

At a successful completion of the course, a student will be able to

- solve computational problems (that may or may not have been discussed in the course),
- state important definitions and results from the course in a precise way
- decide whether statements about the course material are true or false
- present written answers in a complete, correct and well-structured way, using correct notation.

Classes are in-person XXX. Students must be enrolled in one of the three 1h in-person tutorials XXX, and they must attend the tutorial in which they are enrolled.

Classes begin: September 5, 2024; January 6, 2025

Fall Reading Week: October 12 – 20

Spring Reading Week: February 15 – 23, 2025

Classes end: December 6, 2024; April 4, 2025

Exam period: December 9 – 22, 2024; April 7 – 30, 2025

Contingency plan

Although the intent is for this course to be delivered in person, should any university-declared emergency require some or all of the course to be delivered online, either synchronously or asynchronously, the course will adapt accordingly. The grading scheme will **not** change. Any assessments affected will be conducted online as determined by the course instructor.

4. Course Materials

- **Required textbook:** Poole, Linear Algebra, custom edition, Cengage, available at the UWO Bookstore. **The textbook costs \$152.95.**
- Optional: Poole, Linear Algebra Custom Student Solutions Manual, Cengage, available at the UWO Bookstore. **The solution manual costs \$53.**
- **Students need to purchase this edition. Second-hand or older editions will not be sufficient.**
or
Students are welcome to purchase second-hand or earlier editions of this textbook. However, all references to the book (including exercises) made in this course will refer to the custom edition mentioned above. Students with different textbook versions have to translate this on their own for their editions.

All course material will be posted to OWL: <https://westernu.brightspace.com/>

Students are responsible for checking the course OWL site (<https://westernu.brightspace.com/>) regularly for news and updates. This is the primary method by which information will be disseminated to all students in the class.

If students need assistance with the course OWL site, they can seek support on the [OWL Brightspace 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

In case of a switch to online learning, students are required to have stable internet connection, computer with working microphone and webcam and an up-to-date web browser like Firefox, Chrome or Safari, a document scanner or scanning app.

5. Methods of Evaluation

Grading Scheme and Assessment Dates

The overall course grade will be calculated as listed below:

Tutorial Participation	10%
Midterm Tests (2)	25% each, 50% in total
Final Exam	40%

There will be weekly homework assignments. These assignments will be graded, but the grade only serves as a feedback to the student, without affecting the final grade for the course. To receive feedback, a student must upload his or her solution to Gradescope before the deadline.

Graded assignments will be discussed during the tutorials. Students can volunteer to present their solution on the board. The “tutorial participation” mark refers to this and to in-class discussions during the tutorial. In particular, if a student never presents on the board and never participates in a discussion, then the participation mark is 0%.

Depending on the class size, the final exam will be either oral (20min) or written. This will be announced at the start of the semester.

Tentative dates for the midterms are Thu Feb 6 and Thu Mar 13, 7-8:30pm.

General information about missed coursework

Students must familiarize themselves with the *University Policy on Academic Consideration – Undergraduate Students in First Entry Programs* posted on the Academic Calendar: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/academic_consideration_Sep24.pdf,

This policy does not apply to requests for Academic Consideration submitted for **attempted or completed work**, whether online or in person.

The policy also does not apply to students experiencing longer-term impacts on their academic responsibilities. These students should consult [Accessible Education](#).

For procedures on how to submit Academic Consideration requests, please see the information posted on the Office of the Registrar's webpage:

https://registrar.uwo.ca/academics/academic_considerations/

All requests for Academic Consideration must be made within 48 hours after the assessment date or submission deadline.

All Academic Consideration requests normally must include supporting documentation; however, recognizing that formal documentation may not be available in some extenuating circumstances, the policy allows students to make one Academic Consideration request **without supporting documentation** in this course. However, the following assessments are excluded from this, and therefore always require formal supporting documentation:

- **Examinations scheduled during official examination periods** (Defined by policy)

When a student mistakenly submits their one allowed Academic Consideration request **without supporting documentation** for the assessments listed above or those in the **Coursework with Assessment Flexibility** section below, the request cannot be recalled and reapplied. This privilege is forfeited.

Evaluation Scheme for Missed Assessments

There are no extensions for any assessment. The weight of any missed assessment will be transferred to the final exam. If homework is uploaded to Gradescope after the deadline, then the student will not receive any feedback.

When a student misses the Final Exam and their Academic Consideration has been granted, they will be allowed to write the Special Examination (the name given by the University to a makeup Final Exam). See the Academic Calendar for details (under [Special Examinations](#)), especially for those who miss multiple final exams within one examination period.

Essential Learning Requirements

Even when Academic Considerations are granted for missed coursework, the following are deemed essential to earn a passing grade:

- a minimum grade of 45% on the final exam. If this requirement is not met, the final grade cannot exceed 49%.

6. Additional Statements

Religious Accommodation

When conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request an accommodation for their absence in writing to the course instructor and/or the Academic Advising office of their Faculty of Registration. This notice should be made as early as possible but not later than two weeks prior to the writing or the examination (or one week prior to the writing of the test).

Please visit the Diversity Calendars posted on our university's EDID website for the recognized religious holidays:

<https://www.edi.uwo.ca>.

Accommodation Policies

Students with disabilities are encouraged to contact Accessible Education, 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.

Academic Policies

The website for Registrar Services is <https://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 their official university address is attended to in a timely manner.

No electronic devices will or will not be permitted on tests and exams.

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:

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

[If Remote Proctoring Software may be used in this course, including in the event of health lock-down]

In the event of a health lockdown, tests and examinations in this course may 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>.

Support Services

Please visit the Science & Basic Medical Sciences Academic Advising 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/>.

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

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

http://academicsupport.uwo.ca/accessible_education/index.html

if you have any questions regarding accommodations.

Learning-skills counsellors at Learning Development and Success (<https://learning.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.

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