

Math 1600B: Linear Algebra I

Sections 001 and 002

Instructor Information

Section 001 Matthias Franz

Section 002 Masoud Khalkhali

There is a single OWL site for both sections of the course. The tutorial sections listed below are independent of the lecture sections. However, for personal questions contact only the instructor of your lecture section.

Please post all non-personal questions in the OWL forums. Examples of non-personal questions, will we be allowed to use a calculator in the midterm? How do you solve textbook problem 1.1.1? If you email an instructor such a question you will be asked to post your question in the forums.

The tutorials (= labs) will start in the second week.

During the lockdown, the in-person tutorials are also conducted online. Note that they will **switch to in-person** in case the lockdown ends earlier than the semester.

Section	Component	Days	Start Time	Location	Instructor	Delivery Type
001	LEC			Professor	Franz	Online
002	LEC			Professor	Khalkhali	Online
003	LAB	Thu	1:30 PM	SH-3345	TBA	In Person
004	LAB	Thu	12:30 PM	SH-3345	TBA	In Person
005	LAB	Thu	2:30 PM	SH-3345	TBA	In Person
006	LAB	Thu	10:30 AM		TBA	Online
007	LAB	Wed	4:30 PM		TBA	Online
008	LAB	Wed	1:30 PM	TC-141	TBA	In Person
009	LAB	Wed	5:30 PM		TBA	Online
010	LAB	Thu	3:30 PM		TBA	Online
011	LAB	Thu	8:30 AM		TBA	Online
012	LAB	Wed	3:30 PM		TBA	Online

Antirequisite(s): Applied Mathematics 1411A/B, Applied Mathematics 2811B.

Prerequisite(s): One or more of Ontario Secondary School MCV4U, Math 1229A/B, Calc 1000A/B or Calc 1500A/B may be taken as a pre-or corequisite.

Course Syllabus

We will discuss properties and applications of vectors; matrix algebra; solving systems of linear equations; determinants; vector spaces; orthogonality; eigenvalues and eigenvectors.

Classes begin: Januar 11

Spring Reading Week: February 13-21

Classes end: April 12

Technical Requirements for the Course

- Laptop or computer (not a tablet)
- Stable internet connection
- Working microphone
- Working webcam with adjustable view angle
- Device for scanning (for example a smartphone, if you use your webcam for scanning you must ensure that the scanner application can be used simultaneously with zoom (camera on)).

Course Materials

All lectures will be delivered online. Each week we are going to release a new lesson page with thematic units that you have to work through. You can find them in tab column on the left. (At the beginning of the course, there is only "Week 1".) Each unit ends with questions. They do not affect your course grade, but you have to answer them in order to get to the next unit.

The textbook for the course is:

Poole, Linear Algebra, 4th edition, Brooks Cole 2015

You can also get a custom edition of the Student Solutions Manual. You may find this helpful, but it is not required.

Textbook options

1. An ebook can be purchased from [cengage](#). Technically you are renting the book here. Access until December 2021 is sufficient for this course. If you are currently outside of Canada you will need to adjust your browser cookies before visiting the cengage store. To do this, [follow these instructions](#). The payment will need to be made with a Canadian credit card, something you should already have as you payed for tuition over the summer.
2. Alternatively there are a limited number of hard copies of the book available from the [bookstore](#). Older editions may differ from the one mentioned above. The bookstore also has the ebook of the

textbook as well as the custom edition of the Student Solutions Manual, both as printed version and ebook.

Technical requirements

The lectures are online and as a result you will need a computer with a stable internet connection. For the exams you will need a web camera attached to your computer that can be adjusted to look in multiple angles. A stable internet connection and microphone is also required for the exams. To scan the exams you will need an additional camera to your web camera, for example a smartphone camera.

The exams may require the use of a computer with proctortrack software installed.

Method of Evaluation

The overall course grade will be calculated as listed below:

Mock Exams: 2% date TBA (this is to familiarize yourself with the technology)

Midterm 1: 20% date TBA

Midterm 2: 20% date TBA

Final Exam 40% date TBA

Webwork: 10% (this is online homework, roughly once per week)

Tutorials: 8% (for attending **your tutorial section** and working on the assigned problems)

There are both in-person and online tutorials. Tutorial attendance for the full duration of the tutorial is required, if you need to miss a tutorial use the self reported absence tool. Also, during the tutorial you have to work on the problems assigned by your TA.

There will be online quizzes on Webwork, approximately once per week.

If you miss a midterm (for a valid reason), the weights of the exams will be shifted to the remaining exams, preserving the relative weight of each remaining exam. The same applies to the tutorials and the the quizzes.

To obtain accommodation (for a valid reason) go to student centre and fill out an self reported absence, alternatively contact academic counselling.

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 Academic Accommodation for Students with Disabilities policy can be found at: https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf

Academic Consideration for Student Absence

Students will have up to two (2) opportunities during the regular academic year to use an [on-line portal](#) to self-report an absence during the semester, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus.

Students are not able to use the self-reporting option in the following circumstances:

- * for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- * absence of a duration greater than 48 hours,
- * assessments worth more than 30% of the student's final grade,
- * if a student has already used the self-reporting portal twice during the academic year.

If the conditions for a Self-Reported Absence are not met, students will need to provide a Student Medical Certificate if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation. 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 policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry Programs, see:

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

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

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

Religious Accommodation

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar:

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

Other Accommodations

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (see http://www.registrar.uwo.ca/examinations/exam_schedule.html).

Academic Policies

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

In accordance with policy, <http://www.uwo.ca/its/identity/activatenonstudent.html>, 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.

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.

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.

Recording

Participants in this course are not permitted to record the sessions, except where recording is an approved accommodation, or the participant has the prior written permission of the instructor.

Online Proctoring

Tests and examinations in this course will be conducted using Zoom and/or a remote proctoring service, such as Proctortrack. 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.

When Zoom is used for exam invigilation, you will be required to keep your camera on for the entire session, hold up your student card for identification purposes, and share your screen with the invigilator if asked to do so at any time during the exam. The exam session using Zoom will not be recorded.* More information about the use of Zoom for exam invigilation is available in the Online Proctoring Guidelines at the following link:

<https://www.uwo.ca/univsec/pdf/onlineproctorguidelines.pdf>

Proctortrack will require you to provide personal information (including some biometric data). The session will be recorded. By taking this course, you are consenting to the use of this software. More information about remote proctoring is available in the Online Proctoring Guidelines at the following link: <https://www.uwo.ca/univsec/pdf/onlineproctorguidelines.pdf>

Completion of this course will require you to have a reliable internet connection and a device that meets the system and technical requirements for both Zoom and Proctortrack. Information about the systems and technical requirements are available at the following links:

<https://www.proctortrack.com/tech-requirements/>

<https://support.zoom.us/hc/en-us>

* Please note that Zoom servers are located outside Canada. If you would prefer to use only your first name or a nickname to login to Zoom, please provide this information to the instructor in advance of the test or examination.

Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on add/drop 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 Student Accessibility Services (SAS) 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/mental_health) for a complete list of options about how to obtain help.