

Math 1600A: Linear Algebra I (Spring 2017)

Instructor	Matthias Franz
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Office hours	TBA
Class times	TuTh 7:00-9:30pm
Class location	HSB 240
Tutorials	2 hours per week, either before or after class. The TA reviews material from the course and answers questions, and the tutorials also include quizzes (see below). You must attend the tutorial you are registered for (see your schedule). Tutorial sections: 002 TuTh 6:00-7:00pm HSB 13 Alex Rolle & Marco Vergura 003 TuTh 9:30-10:30pm HSB 13 Chris Dugdale & Dinesh Valluri Tutorials start May 9 . (So if you are in Section 002, your first tutorial is before the first lecture.)
Course outline	Properties and applications of vectors; matrix algebra; solving systems of linear equations; determinants; vector spaces; independence; orthogonality; eigenvalues and eigenvectors. Link to UWO course calendar .
Textbook	D. Poole, <i>Linear Algebra: A Modern Introduction</i> , Math 1600 Third Custom Edition Western University, Brooks Cole. The textbook is available at the bookstore . It is possible to use the regular edition instead of the custom edition.
Prerequisites	One or more of Ontario Secondary School MCV4U, Mathematics 1229A/B, Calculus 1000A/B or 1500A/B, the former Calculus 1100A/B. Calculus 1000A/B or 1500A/B may be taken as a pre- or corequisite.
Antirequisites	Applied Mathematics 1411A/B, 2811B
Quizzes	There will be 4 quizzes throughout the term, during the tutorials. The quizzes will cover the material up to and including what was covered the previous week's lectures. You must take the quiz at the tutorial you are registered for. May 16 quiz 1 May 23 quiz 2 May 30 midterm Jun 6 quiz 3 Jun 13 quiz 4
Midterm exam	Tue May 30, during class.
Final exam	The date and location for the final examination is TBA. The final examination will be three hours long. It will be scheduled by the registrar. It will cover all the material from the course, but will emphasize the later material. See below for how conflicts are handled.
Evaluation	Quizzes: 20%, midterm: 30%, final exam: 50%. For the quizzes, the lowest score will be dropped.

What is expected of the student

The aim of the course is for you to learn the techniques of linear algebra and to gain an understanding of the concepts on which the techniques are based. This will require a considerable effort on your part. For each hour of lecture, you should spend about 2 hours studying the material at home. This includes reading the relevant sections of the textbook and, above all, doing the exercises at the end of each section as we cover the material, not just before quizzes and exams. Do as many of them as necessary to feel comfortable with the material.

Remember: You understand the material if you can answer questions about it *that you have not seen before*. Being able to solve the umpteenth exercise in a row of almost identical ones just shows that you remember the recipe. While this is certainly important, you should not confuse this with a true understanding of the concepts.

It is strongly recommended to *read the text ahead of time* to prepare for each lecture.

This course covers a lot of material, and is cumulative (much more than other courses!), so it will be necessary to work hard throughout the term in order to do well.

Quizzes and exams

For quizzes and exams, questions will be similar — but not identical — to the exercises in the textbook. Here "similar" means that they require the same level of understanding, not that just the numbers were changed.

The best way to prepare for quizzes and exams is to do as many exercises as possible. Note that the point is not to learn solutions by heart, but to gain experience in finding them. If you cannot solve an exercise, the most important question you should ask yourself is not: "What is the solution?" (which, for most odd-numbered exercises, can be found at the end of the book), but: "What is the concept that I haven't understood?"

No calculators or other aids are allowed on quizzes or exams.

Missed quiz, midterm or final exam

If you know ahead of time that you are unable to attend a quiz, midterm or final exam, please let your instructor know as soon as possible so alternative arrangements can be made. For final exam conflicts, see below.

If you are unable to attend a quiz, midterm or final exam due to *illness* or other serious circumstances, you must provide valid medical or other supporting documentation to your Dean's office as soon as possible and contact your instructor immediately. It is

the student's responsibility to make alternative arrangements with their instructor. For further information please see [this link](#) and the [Student Services](#) web site.

A student requiring academic accommodation due to illness should bring a [Student Medical Certificate](#) with them when visiting an off-campus medical facility and use a Record Release Form for visits to Student Health Services. Hard copies of both of these forms are available from your home Faculty Academic Counselling Service.

If a **quiz** is missed and sufficient documentation is provided, the grade for that quiz will be *reweighted* to the other quizzes. If an **exam** is missed and sufficient documentation is provided, a *make-up exam* will be offered.

Failure to follow these rules may result in a grade of zero.

Final exam conflicts

Please see the [University's policy on final exam conflicts](#). Here is a quote from this document:

A student who is scheduled to write more than two such examinations in any 23-hour period, more than three in any 47-hour period, or more than four in any 71-hour period may request alternative arrangements through the **office of the dean** of their faculty.

A student who is scheduled to write **two examinations concurrently** must notify the **Registrar** so that arrangements may be made for both examinations to be written in the Examination Conflict Room in a sequence established by the Registrar.

In the case of two exams at the same time, the Registrar's office should have already contacted you, but if not, contact Averil Davis, x84866, adavis32@uwo.ca.

In both cases, please also let your **instructor** know about the conflict, and read the entire University policy.

Academic offences

Copying solutions from other students, online sources, textbooks, etc., or showing your work to other students, constitutes a scholastic offence.

Scholastic offences are taken seriously and students are directed to read the [official policy](#). Note that the penalty for cheating can include receiving a **failing** grade in the course and **suspension** or **expulsion** from the University. All scholastic offences are added to your student record.

Electronic devices (including cell phones and music players) are not allowed at the exams. The mere possession of such devices will already be considered an academic offence.

Accessibility

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact [Services for Students with Disabilities \(SSD\)](#) at 519-661-2111 x82147 for any specific question regarding an accommodation.

Support Services

Learning-skills counsellors at the [Student Development Centre](#) are ready to help you improve your learning skills. Students who are in emotional/mental distress should refer to [Mental Health@Western](#) for a complete list of options about how to obtain help. Additional student-run support services are offered by the [USC](#). The website for Registrarial Services is <http://www.registrar.uwo.ca>.

Eligibility

You are responsible for ensuring that you have successfully completed all course prerequisites and that you have not taken an antirequisite course. Unless you have either the requisites for this course or written special permission from your Dean to enrol 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.