

MAT1341: Introduction to Linear Algebra

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Office Hours: Mondays and Tuesdays 1pm-3pm; you can also set up an appointment with me by email. It is my goal that absolutely everyone in the class understands the material and as a result passes, so please do not hesitate to come and ask me about anything in the course. If you think you are having trouble with the course, come and see me as soon as possible and do not wait until it's too late.

Overview and aims of the course. We study the basic concepts and techniques from linear algebra, ranging from vector spaces and bases to eigenvalues, eigensystems and diagonalization. While the parts of the course may look familiar to students who have already seen matrices and elementary operations on those, you should be warned that the course rapidly becomes more abstract. Moreover, the course is highly cumulative; hence it is of great importance that you keep up with the material.

Course homepage:

www.courseweb.uottawa.ca/MAT1341D

You should check this website regularly: course material, homework assignments, sample midterms and other material will be made available here.

Classes. The lectures and DGD sessions are key to succeeding in this course, and attendance is highly recommended.

- **Classes:** Tuesdays and Thursdays 19:00-20:30 SITE G0103.
During the lectures, I will explain the material and illustrate with examples.
- **First class:** January 7th.
- **DGD:** Thursdays after class - 20:30-22:00 SITE A0150.
During the DGDs, the TA will guide you through the exercises.

Exams, homework and marking scheme. There will be a 3 hour, registrar scheduled *final exam* in the exam week (April 15-30, exact date will be announced). The exam will be cumulative (comprising all course material); no notes, books or calculators will be allowed.

There will be *two midterm exams*, one on **February 14**, and one on **March 18** (both during class hours, lasting 75 minutes). The material for these midterm

exams will be announced on the course website. No notes, books or calculators will be allowed.

Finally, there will be *three homework assignments*, due **February 7**, **March 11** and **April 10**, respectively. The assignments will be posted on the course website one week before the due dates.

- Final exam: 45%
- Midterms: 20% each
- Homework assignments: 5% each

Note: in order to pass the course you need to score 50% or more on the final exam. If you score less than 40% on the final exam you will automatically receive an F.

Also note that if you cannot make it to one of the midterm exams, you will have to provide your instructor with a written proof (medical note) that you have a valid reason. In that case, the weight of the midterm will be transferred to the final exam.

Textbook W.K. Nicholson: Elementary Linear Algebra (2nd edition, McGraw-Hill). Where needed, additional material will be made available on the course website.

Other resources. Here are some other resources which will be helpful:

- **Math Drop-in Centre:** located in MRN021 and open from 10-7 Mon-Thu and 10-3 Fri, the Drop-in centre is staffed by math professors and graduate students who will help you with problems and exercises. **You are not allowed to ask them to help you with homework assignments** (this counts as academic fraud, please see the university policy on that).

http://www.mathstat.uottawa.ca/ugrad/help_center_en.html

- **Online test bank:** this is a bank of problems for you to practice, and it is available through virtual campus. During the course, suitable problems will be indicated on the course website.
- **Linear algebra page:** if you want to see the theory being applied to a wide variety of real-life examples, then the following page will provide you with illustrations of many concepts we study in class:

<http://aix1.uottawa.ca/~jkhoury/linearnew.htm>

Academic Fraud. This includes cheating of any kind, plagiarism, and submitting homework which is not your own. Any incident will be reported to the Faculty without exception. Please see the university policy on academic fraud.