About the course:
This course is an introduction to linear algebra, intended for students who are interested in mathematics.

In the 19th century it was recognized that were common features to many areas of mathematics, phenomena we now identify with the adjective *linear*. Gradually, the ideas associated with "linearity" were investigated, and techniques developed for dealing with linear phenomena. These ideas and techniques form a cohesive subject in their own right; a subject we call linear algebra.

The point of view of linear algebra is now pervasive in mathematics. As examples of this, the language of linear algebra is the one in which we express the mathematical formulation of quantum mechanics, the curvature and vector bundle calculations appearing in differential geometry and general relativity, the basic facts of Galois theory (in Number theory), the way we deal with many iterated systems in biology and dynamical systems, algorithmic methods for controlling many processes, and numerical methods for computation.

The approach of linear algebra has been so successful, that the process of "linearization", i.e., that of trying to convert a given problem into an essentially linear one is, now general strategy in mathematics.

This course serves as in introduction to the circle of ideas and techniques of linear algebra. We will also take the opportunity to discuss applications, and some related mathematical topics.

Grading Scheme:

FIRST TERM		SECOND TERM	
Homework	25%	Homework	20%
Midterm	35%	Midterm	30%
Dec. Exam	40%	Dec. Exam	50%

There are twelve homework assignments each term, and the lowest two grades each term will be dropped when computing the homework mark.

The homework is due Tuesday, at the beginning of class, or turned in to the the math office before 4:30pm. The first homework assignment is due on Tuesday, September 20.

Web stuff:
The schedule of lectures and the homework assignments can be found at

http://www.mast.queensu.ca/∼mikeroth/linalg/linalg.html

There is also a Web CT site for the course where you will be able to check your grades, go to the web page above, or post questions to the class. You can log in to Web CT from the above page, or directly from the university's Web CT page.

Tutorials:
There are two tutorials for the course, Wednesday 9:30–10:20 in Jeff 225 and Friday 2:30–3:20 in Jeff 118. The tutorials are a chance to go over some of the ideas in the class that week; there will be a small presentation about one of the topics, some practice problems, and people who can answer questions about these problems and the ideas in class. The tutorial is *not* meant to answer specific questions about the homework.

You are expected to attend one tutorial per week.

Other resources:
The *Math Help Center* in Jeff 201, is open from 8:30am to 7pm, and there are tutors there who can help answer your questions.

There will also be two undergraduate assistants for the class, and I expect that they will have weekly meeting times in the math help center. This is especially useful since they will know exactly what is going on in the course, and so have a better chance at answering your questions in a way that you can understand. I will also have regular office hours where you can come and ask questions.

The meeting times of the two tutors and the times of the office hours will be announced next week.

Instructor: Mike Roth, 507 Jeffrey Hall, `mikeroth@mast.queensu.ca`.