



Faculty of Science
DEPARTMENT OF MATHEMATICS AND STATISTICS
Course Information Sheet

1. **Course: MATH 221** Linear Algebra for Scientists and Engineers **Fall 2003**
Lecture/Time/Session: L18 / MWF 15:00 / F03 **Room: ST 141**
Instructor: Claude Laflamme
Office: MS 572 **Phone: 220-3962**

2. **Prerequisites:** A grade of 70 per cent or higher in Mathematics 30 or Pure Mathematics 30.

NOTE: The Faculty of Science policy on pre- and co-requisite checking is outlined on page 198 of the 2003-2004 Calendar. **It is the students' responsibility to ensure that they have the pre- and co-requisites for the course, and if they do not they will be withdrawn from the course without notice.**

3. **Fee policy:** After the last day to drop/add courses, there will be no refund of tuition fees if a student withdraws from a course, courses or the session.

4. **The University policy on grading and related matters** is described on pages 41-42 of the 2003-2004 Calendar. In determining the overall grade in the course, the following weights will be used:

Online Quizzes	[17]	20%
Mid-term Test	[2]	30%
Final Exam	[1]	50%

***** There will be a final examination scheduled by the Registrar's Office. *****
The use of aids during exams such as open book, calculators, etc. is not permitted.

5. **Missed Components of Term Work.** The regulations of the Faculty of Science pertaining to this matter are outlined on page 199, of the 2003-2004 Calendar. It is the student's responsibility to familiarize herself/himself with these regulations.

6. **Academic misconduct** (cheating, plagiarism, or any other form) is a very serious offence that will be dealt with rigorously in all cases. A single offence may lead to disciplinary probation or suspension or expulsion. The Faculty of Science follows a zero tolerance policy regarding dishonesty. Please read the sections of the 2003-2004 University Calendar under the heading "Student Misconduct", pages 53-56.

7. **Dates and times of class exercises held outside of class hours (evening tests, Saturday laboratory examinations, weekend field trips, etc.):** **** There will be no out-of-class-time activities.**

TEXT: *Elementary Linear Algebra, 2nd Edition* by W. Keith Nicholson, McGraw-Hill Ryerson, 2001.

REGISTRATION: You must register under your section number on the *Lyryx Interactive Linear Algebra* website at: <http://lila.lyryx.com>

The new bundled version of the textbook contains a special pincode giving you direct access to the website. If you do not purchase a textbook, then the cost for the website (which contains an electronic version of the textbook) is \$39.95 plus GST.

GRADING: The grade will be based on the following test scores:

Online Labs (17): 20%; Midterm Exams (2): 30% Final Exam (1): 50%

ONLINE LABS: These labs are from the *Lyryx Interactive Linear Algebra* website, and can be taken anywhere you have access to the internet. You must do a lab for each of the sections of the course (see the schedule below). You can try these labs as many times as you wish (only a better mark is recorded) prior to the deadlines which correspond to the midterms:

Deadlines: Chapter 1 Labs must be submitted before midnight on October 8
 Chapter 2 Labs must be submitted before midnight on November 7
 Chapter 3 Labs must be submitted before midnight on the last day of classes, December 8

MIDTERMS: These are two 50 minute written examinations, each worth 15% of the final grade, held in class at the times posted below.

FINAL EXAMINATION: This will be a 3-hour test worth 50% of the final grade, scheduled by the Registrar.

Lyryx Interactive Linear Algebra: The website contains much more than just labs, and also includes narrated and animated tutorials, explorations to enhance your understanding of the material and which can be used as computing tools, a messageboard to post questions, and the entire textbook! *Lyryx Interactive Linear Algebra* is available from anywhere through the internet.

TUTORIALS: Instead of the tutorials posted on your schedule from the Registrar, we have booked the following computer room at the indicated hours for your convenience. This is not mandatory and more like a drop-in center. There will be teaching assistants in the room during these hours to answer any questions you may have about exercises, theory in the course, and the software.

MS 515: Mondays: TBA
 Tuesdays: TBA
 Wednesdays: TBA
 Thursdays: TBA

IMPORTANT NOTE: The midterm and final exams will *not* be held in the computer room, and done on good old paper. So you must also learn to do many of the exercises yourself without relying on the computer.

LECTURE SCHEDULE: Here is an approximate outline of the contents of the course.

WEEK	MATERIAL	COMMENTS
Sep 8-12	1.1, 1.2	Lectures begin Mon Sep 8
Sep 15-19	1.3, 1.4	
Sep 22-26	1.4, 1.5	
Sep 29-Oct 3	1.5, 1.8	
Oct 6-10	Mid 1, 2.1	Midterm 1: Wed Oct 8, in class.
Oct 13-17	2.2, 2.3	Thanksgiving: Oct 13
Oct 20-24	2.3, 2.4	
Oct 27-31	2.5, 2.6	
Nov 3-7	3.1, Mid 2	Midterm 2: Wed Nov 5, in class.
Nov 10-14	3.2	Reading Days: Nov 8-11
Nov 17-21	3.2, 3.3	
Nov 24-28	3.3, 3.4	
Dec 1-5	3.4, 3.5	
Dec 8	3.5	Lectures end Monday, Dec 8