MAT 211.02 Introduction to Linear Algebra
Stony Brook Fall, 1999

Room/Time Physics P 113, MWF 2:15 - 3:10

Course Instructor: Dusa McDuff, Math Bldg P- 143 (Undergraduate Office), phone: 632-8250, email: dusa@math.sunysb.edu.

Prof Ferleger will take over from Prof McDuff when he arrives back, probably in mid-October.

Office hours Prof McDuff: Mon. 1 - 2pm and Wed. 3:15 - 4:15pm, both in UG Office.

TA office hours in Math Learning Center, Phys A 127

Lee: TuTh 11:00 -- 12:30, Ge: Mon. 3:30 -- 4:30, Wed. 12:40 -- 1:40.

Text book: *Linear Algebra with Applications*, by Otto Bretscher.

Scope and Goals This course will develop the main ideas of linear algebra, mostly but not entirely from a computational viewpoint. The connection with geometry will be emphasized. The course will cover the whole of Chapters 1-3 and then introduce the more abstract viewpoint of Secs 9.1 and 9.2. Then it will do selected parts of Chs 4, 5, 6, 7 as time permits. Occasionally notes will be handed out in class on topics not adequately covered by the textbook.

HOMEWORK and QUIZZES

Homework is a very important part of the class, since no one can understand mathematics without doing problems. You are expected to work the exercises listed below on your own time. The homework to be handed in and graded will be announced in class and on the Web the week before and will be due at the beginning of class on Mondays. Late homework will be penalised. There will be class time available (usually on Fridays) to ask questions about homework problems. You may work on your homework with other people (in fact, this is often a good idea), but the work you hand in must be your own, not copied directly from others. You should also list your working partners on the homework you hand in.

There will be occasional in-class quizzes that will be announced beforehand and based on the assigned exercised listed below.

Exams There will be two in-class midterms on

FRIDAY OCTOBER 8 and **WEDNESDAY NOVEMBER 10**

and a final exam on

MONDAY DECEMBER 20 at NOON -- 3pm

It is your responsibility to be present at these exams, and to inform the instructor (beforehand if possible) if there is a legitimate reason why you cannot be present. There will be no make-up exams except under very exceptional circumstances. The final exam will be cumulative. You are permitted to use graphing calculators such as the TI82 on exams and quizzes.

GRADES The final grade will be calculated as follows:

Homework and quizzes 20%, Midterms 25% each, Final exam 30%.

An alternative grade will be computed by using the Final as 40% and the best 2 out of the 3 other numbers as 30% each. The best of the two grades will be assigned.

NOTE

If you have any condition, such as a physical or mental disability, that will make it difficult to complete the course, please notify the instructor during the first two weeks of class so that appropriate arrangements can be made.

ASSIGNED EXERCISES

Here is a list of recommended exercises from the first part of the course. You should make sure that you can do them. They give a good idea of the scope of the course, and quizzes and exams will be largely based on them.

rough timing	section	assigned exercises
Sept 1-13	1.1	1, 7, 9, 13, 15, 19, 20, 25, 28, 31, 35
	1.2	1-11, odd, 19, 21, 27, 29, 34, 37, 39, 42
	1.3	1, 3, 5, 7, 9, 12, 19, 23, 27, 29 - 33, 55, 57
Sept 15 -	2.1	1-6, 9, 13, 20, 21, 27, 28, 35, 42
Oct1	2.2	1, 3, 5, 9, 10, 17, 19, 21, 37, 43
	2.3	1, 3, 5, 19, 29, 35, 49 (a)

	2.4	1, 5, 7, 11, 16, 27, 31, 41, 50, 52(b), 53(b)
Oct 4 - 20	3.1	1,3,7, 13, 14, 15, 21, 31
	3.2	1, 3, 5, 12, 15, 17, 22, 35, 27, 33
	3.3	3, 5, 7, 13, 22, 49, 61
Oct 22-29	9.1	1-11 odd, 12, 13, 16, 21, 25, 33, 38, 39, 40, 41, 45
	9.2	1, 2, 5, 7, 18, 19, 21
	7.1	1, 3, 5, 9
