MA2071 Syllabus

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       or by appointment
       ... or, just drop in

MA 2071 – C01-C04, C Term 2002
Matrices & Linear Algebra I
Text: "Introductory Linear Algebra"
by Kolman and Hill (7th ed.)
Meetings: 12:00–12:50 MTWRF
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The goal of this course is to develop the basic language and techniques of matrix algebra and to introduce vector spaces and eigenvalues. Linear algebra is an essential part of mathematics and an indispensable tool in many areas of science and engineering. We will illustrate this fact by touching on some of the many applications of linear algebra throughout the course.

TERM SCHEDULE

Here is a rough outline of what we will cover in the 28 lecture periods:

Jan. 10 to Jan. 11	*Matrix Arithmetic*	Secs. 1.1–1.4
Jan. 14 to Jan. 18	*Linear Systems, Determinants*	Secs. 1.5, 1.6, 3.1, 3.2
Jan. 21 to Jan. 25	*Geometry, Transformations*	Secs. 4.1–4.3
Jan. 28 to Feb. 1	*Vector Spaces*	Secs. 5.3–6.2
Feb. 4 to Feb. 8	*Subspaces, Dependence, Bases*	Secs. 6.3–6.6
Feb. 11 to Feb. 15	*Change of Basis, Orthogonality*	Secs. 6.6–6.8
Feb. 18 to Feb. 22	*Eigenvalues*	Secs. 8.1–8.3
Feb. 25 to Feb. 28	*Applications*	Secs. from Chaps. 2 and 9 (as time permits)

The following sections may be covered on the given dates if time permits: Sec. 5.1 (1/25), Sec. 6.9 (2/15).

GRADES

A: 100 % – 88 %;   **B**: 87.99 % – 74 %;   **C**: 73.99 % – 60 %

GRADING SCHEME

Homework (best 5 assignments):   25 %
Tests (Jan. 30, Feb. 13, Feb. 27):   75 %

TESTS WILL BE GIVEN IN THE EVENING

There will be three tests. These will be given on the following dates:

- **Test 1:** Wednesday, January 30, 2002 from 6pm to 8pm in Perreault Hall, Fuller Labs

- **Test 2:** Wednesday, February 13, 2002 from 6pm to 8pm in Perreault Hall, Fuller Labs

- **Test 3:** Wednesday, February 27, 2002 from 6pm to 8pm in Perreault Hall, Fuller Labs

HOMEWORK

In order to encourage students to keep up with the course and to prepare for the tests, a large number of problems from the text will be recommended. A small number of problems will be collected and graded for credit. These **six homework assignments** will be handed out in the conference sections and collected in the following conference section. The best five of these will be used in the calculation of your grade.

QUIZZES

Each Friday, a non-credit quiz will be distributed upon exit from the lecture. Solutions will be distributed in the following conference section. The questions on the quizzes should be viewed as sample test questions.

CONFERENCE SECTIONS

Section	Meeting Time	Location	PLA
C01	Wed. 12:00 – 12:50	SH106	John Waymouth
C02	Wed. 12:00 – 12:50	SH202	Iavor Trifonov
C03	Wed. 12:00 – 12:50	SH304	Tim Sutherland
C04	Wed. 12:00 – 12:50	SH308	Dena Files

These sessions provide one-on-one contact with experienced senior students. Students may work in groups, solve sample problems at the blackboard, or go over test solutions, among other activities. This is an important and integral part of the course. **All students are expected to attend** their respective conference sections. All assignments will be distributed and collected in the conference sections.

IMPORTANT NOTES:

- Any student who will be unable to attend any test due to a pre-existing conflict on any one of these dates **MUST** notify the instructor no later than Friday, January 18 to make alternative arrangements;

- If a student happens to miss a test for valid reasons (e.g., as evidenced by a doctor's note specifically stating that the student was too ill to participate), then the weight of the remaining tests may be increased to compensate for the missing mark;

- No late assignments will be accepted for credit.