

MA2210 Syllabus

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or by appointment
... or, just drop in

MA 2210 – D01-D02, D Term 2004
Math. Methods in Decision Making
Text: “An Introduction to Management Science” (10th ed.), by Anderson, Sweeney, and Williams
Meetings: 10-10:50 MTRF, SH202
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The goal of this course is to introduce mathematical tools used in decision making. Thus the course consists of a brief survey of an area known as “Operations Research” or “Management Science”. The topics covered range from linear programming to network models to decision trees to queueing models. Familiarity with these powerful tools of analysis and cost-efficiency gives a competitive edge to engineers, scientists and managers in our information society. Students will be expected to master a wide range of mathematical techniques which have proven effectiveness in a vast array of areas of application.

TERM SCHEDULE

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

Mar. 16 to Mar. 19	<i>Linear Programming</i>	Chapters 1 & 2
Mar. 22 to Mar. 26	<i>Simplex, Sensitivity</i>	Chap. 3, 5 & 6
Mar. 29 to Apr. 2	<i>Duality, ILP and Complexity</i>	Chap. 4 & 8
Apr. 5 to Apr. 9	<i>Networks, Assignment, Shortest Path</i>	Chap. 7 & 9
Apr. 12 to Apr. 16	<i>Max Flow, PERT/CPM</i>	Chap. 9 & 10
Apr. 19 to Apr. 23	<i>Decision Trees, Prob. & Stats</i>	Chap. 14
Apr. 26 to Apr. 30	<i>Queueing, Markov Processes</i>	Chap. 12 & 17
May 3 to May 4	<i>Further Topics</i>	(if time permits)

Specific reading assignments will be given weekly. These amount to roughly 40 pages of reading expected of the student each week.

GRADES

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

GRADING SCHEME

Homework (best 5 out of 6 assignments): 25 %
3 Tests (Apr. 2, Apr. 16, May 4): 75 %

Assignments will be due (in mailbox labelled “MA2210 Assignments” in Room SH108) at 4:00 pm on the following dates: **Mar. 25, Apr. 1, Apr. 8, Apr. 15, Apr. 22, Apr. 29.** No late assignments will be accepted for credit.

There will be **no** make-up tests. All students are expected to attend all tests.