STAT401/890 STOCHASTIC FINANCE
COURSE INFORMATION: SEMESTER 2, 2008

LECTURERS
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Aims
This unit aims to integrate a basic understanding of how financial markets work
with the analytic tools for modelling their time-dependent structures. Since these
structures are based on random (“stochastic”) processes, stochastic models
underpin the methods. Where feasible, analytical methods are developed. The aim is to
present as much financial theory about securities markets as possible without requiring
the advanced mathematics that is associated with continuous time models.

Target Audience: Students with a major in Actuarial Studies, Statistics, or Finance.

Prerequisite: Basic probability theory (Stat272 or equivalent)

Text: Mathematics for Finance: An Introduction to Financial Engineering by M. Capinski
Webpage http://www-users.york.ac.uk/~tz506/m4f/

Lecture notes, assignments and associated material will be available via Blackboard.

Login at http://learn.mq.edu.au/.

Time and Place: Thursday 6-9pm in C5C 240
We'll be using Blackboard for discussions and dissemination of information. We’ll regularly post updates of lecture notes and assignments, etc. If you have problems with connection to Blackboard please contact the Information Desk in the Library as soon as possible and fix the problem. Bad or no connection to the Blackboard will not be accepted as a factor affecting our standards of grading.

**DISTANCE MODE**

Distance students will receive lecture notes and assignments by mail. Please contact Leslie Mooney, the Administrator of Postgraduate Studies, if you feel the notes have gone astray. Her phone number is +61 2 9850 8550 and the email address is lmooney@efs.mq.edu.au.

Please send your assignment solutions in the first six weeks to
A/Professor Andrzej Kozek
Statistics Dept, EFS, Building E4A 508
Macquarie University
Sydney NSW 2109
Australia.
Email: akozek@efs.mq.edu.au

and in the remaining part of the course to
Dr Nino Kordzakhia,
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Macquarie University
Sydney NSW 2109
Australia.
Email: nkordzak@efs.mq.edu.au

You can also submit your assignments via Blackboard.

**COURSE WEBSITE**

There is a course website at
http://www.stat.mq.edu.au/ug/units/stat_units400/stat401
The login button will take you to the WebCT login screen.
ASSESSMENT
Assessment consists of:
Final exam 58%
4 random, not-announced, quick class tests 12% (3% each), (the external
students have to return it by Blackboard on the same day)
2 Assignments 30% (15% each)

Satisfactory performance is required in all aspects of the unit. Students
who have not performed satisfactorily in the assignments will not be
permitted to sit the examination.

A calculator and four (4) A4 sheets of summary notes written on one or
both sides in the student's own handwriting may be taken into the final
examination.

PLAGIARISM. You can find the University policy on plagiarism at
http://www.student.mq.edu.au/plagiarism/

SOFTWARE
Matlab is our preferable software for solving assignments and classroom
problems. We will provide Matlab code used in solving examples discussed
in the class. We also recommend using Scientific Notebook in reporting
assignments and solving analytical problems.