

## 620-302 CHANCE AND OPTIONS PRICING/2009

Lecturer: PROF KOSTYA BOROVKOV

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Office hours for this subject: Wedn., 1–3pm (TBC)

Lectures: MON. & FRI.: HERCUS THEATRE (DAVID CARO BLDG);

WEDN.: OLD ARTS THEATRE C;

ALL LECTURES ARE TIMETABLED FOR 9–10AM.

Pracs:

PROBLEM SOLVING SESSIONS: one hour per week (starting week 2 of semester),

MON.: RUSSELL LOVE THEATRE (RICHARD BERRY), 1–2PM.

Lecture Slides:

Cover the whole course and will be available for downloading from the Web.

Recommended (optional) books:

You do not need to buy any books. The books below are recommended as *additional optional reading only*, in no particular order. Other editions of the texts below and other texts as well will be helpful, too. BUT: the lecture transparencies/handouts available on the Web will cover the material that is examinable. Please note that some of the texts below may be put on reserve during semester.

SHREVE, S. *Stochastic Calculus for Finance*. Internet resource:

<http://www.math.cmu.edu/users/shreve/LectureNotes.pdf> (1+ MB, 364 pp.)

+ an extended hard-copy version (New York: Springer, 2004; in two volumes). [Available at: UniM ECO 332.0151922 SHRE SEVEN DAY LOAN + UniM Baill Res 332.0151922 SHRE TWO HOUR LOAN.]

ETHERIDGE, A. *A course in financial calculus*. Cambridge: Cambridge University Press, 2002. [Available at: UniM Maths 332.63222 ETHE + UniM Baill Res 332.63222 ETHE.]

GIBSON, R. *Option valuation: analyzing and pricing standardized option contracts*. New York: McGraw-Hill, 1991. [Available at: UniM Baill Res 332.63228 GIBS.]

MIKOSCH, T. *Elementary stochastic calculus with finance in view*. Singapore: World Scientific Pub, 1998. [Available at: UniM Maths 519.22 MIKO.]

ROSS, S. M. *An introduction to mathematical finance*. Cambridge: Cambridge University Press, 1999. [Available at: UniM Maths 332.60151 ROSS.]

KIJIMA, M. *Stochastic processes with applications to finance*. Boca Raton, FL: Chapman & Hall/CRC, 2002. [Available at: UniM Maths 519.23 KIJI.]

## Assessment:

A 3-hour end of semester written examination and up to 50 pages of assignments may be assessed. You will be given weekly homeworks (the plan is to distribute them on Fridays), solutions to which you will have to submit (and there will be no further assignments apart from these homework sheets). Only one of the homework problems (one and the same for the whole class) will be marked each time; it will be chosen at random (after the work has been submitted). Late submissions will receive no mark (unless you qualify for special consideration; please contact your tutor ASAP if this is the case).

The final mark for the subject will be calculated basing on the following formula:

$$\text{Final Mark} = 0.8 \times \text{Exam Mark (out of 100)} + 0.2 \times \text{Total Homework Mark (out of 100)}$$

## Web stuff:

During semester new information re the subject will be published at

<http://www.ms.unimelb.edu.au/~s620302/302.html>