

1011-MA235 Probability

First Semester 2010/2011

Lecture times and locations

Monday 1300-1400 AC214

Thursday 1300-1400 E212

NOTE: lecture rooms are in two different buildings!

Course lecturer

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office hours: Thu 1600-1700 or by appointment

Course web page

All information will be communicated through the Blackboard or during the lectures.

Course description

This is an introductory course to probability theory and its applications intended for the second year students of Financial Mathematics and the third year students of Mathematics and Arts. Topics will include: combinatorial analysis, axioms of probability, concepts of independence and conditional probabilities, random variables (discrete and continuous), joint probability distributions, properties of expectation, probability generating functions, moment generating functions, Central Limit Theorem, Law of Large Numbers.

Course work and examination

Continuous assessment (CA) will include a combination of homework assignments and in-class quizzes; CA will contribute (about) 20-25% to the final mark. Examination will be according to the University rules and schedule.

Reference books

C. Grinstead and L. Snell, *Introduction to Probability*, American Mathematics Society.

NOTE: a version of the book available online at

http://www.dartmouth.edu/~chance/teaching_aids/books_articles/probability_book/book.html

Hoel, Port, and Stone, *Introduction to Probability Theory*, Houghton Mifflin.

S.Ross, *A First Course in Probability*, Prentice Hall.

J.H.Freund, *Mathematical Statistics*, I.Miller and M.Miller.

D.Stirzaker, *Probability and Random Variables*, Cambridge University Press.

Y.A.Rozanov *Probability Theory: A Concise Course*, Dover Publications.