Course Programme TMS170/MSA360 Stochastic Calculus Part II, 7.5 credits, 2nd quarter Fall 2007

Responsible Teacher. Patrik Albin (lectures), room 3072 Mathematica Sciences, tel. 772 3512, email palbin@math.chalmers.se

Other Teachers. Ottmar Cronie (exercises and examination of hand-ins), room 3075, email ottmar@math.chalmers.se, tel. 772 4992.

Responsible University Unit. Department of mathematical Statistics, Mathematica Sciences, Chalmers Tvärgata 3. Expedition: see the www-pages of the department.

Literature. *Fima C. Klebaner: Introduction to Stochastic Calculus with Applications, 2nd Ed.*

Language. The course is given in english.

Course www-page. http://www.math.chalmers.se/Stat/Grundutb/GU/MSA360/H07/

Content of Course. Chapters 6-14 in Klebaner's book. Additional lecture notes on applications and modelling are distributed during the course.

Examination is handled by Ottmar Cronie (albeit Patrik is the formal examiner) through hand-ins. Help with the hand-ins is offered by Ottmar.

Upon request there it is possible to pass the course by doing a single greater project suited to the students particular interests. Typically this can be used as a preparation for a master's thesis project (not necessarily with Patrik as advisor). Please contact Patrik Albin for more information.

It is an outspoken intention that every student that is reasonably well prepared and reasonably well motivated should have a lot of positive things to get from the course. All such students should also pass the examination. If in doubt about anything of this, please contact Patrik.

Admission and Registration. Students that have not been admitted to the course or registered for it are very welcome anyway! Advice on how to register will be offered by Patrik at the lectures.

Lectures. Room MVF:31, Mathematical Sciences Mondays and Tuesdays 3.15-5 pm.

Schedule	Day	Programme
Lecture 1	Monday 29 October 3.15 pm	Chapter 6 in Klebaner
Lecture 2	Tuesday 30 October 3.15 pm	Chapter 6 in Klebaner
Lecture 3	Monday 5 November 3.15 pm	Chapters 6-7 in Klebaner
Lecture 4	Tuesday 6 November 3.15 pm	Chapter 7 in Klebaner
Lecture 5	Monday 12 November 3.15 pm	Chapters 7-8 in Klebaner
Lecture 6	Tuesday 13 November 3.15 pm	Chapter 8 in Klebaner
Lecture 7	Monday 19 November 3.15 pm	Applications/Modelling I
Lecture 8	Tuesday 20 November 3.15 pm	Chapter 8 in Klebaner
Lecture 9	Monday 26 November 3.15 pm	Chapter 9 in Klebaner
Lecture 10	Tuesday 27 November 3.15 pm	Chapters 9-10 in Klebaner
Lecture 11	Monday 3 December 3.15 pm	Chapter 10 in Klebaner
Lecture 12	Tuesday 4 December 3.15 pm	Applications/Modelling II
Lecture 13	Monday 10 December 3.15 pm	Applications/Modelling III
Lecture 14	Tuesday 11 December 3.15 pm	Applications/Modelling IV

Exercises. Fridays 3.15-5 pm in the lecture room MVF:31, except the exercise Friday 16 November which is in room MVH12. A programme for the exercises will be distributed by Ottmar. Exercises from Klebaner's book will be used together with additional exercises distributed by Ottmar. See http://www.math.chalmers.se/~ottmar/stochcalc/2007/stochcalcII.html

The exercise sessions and hand-ins will involve practical modelling tasks.