Course Programme MSG800/MVE170 Basic Stochastic Processes, 7.5 credits, 2nd quarter Fall 2012

Responsible teacher. Patrik Albin, room L3072 Mathematica Sciences, telephone 031 772 3512, email `palbin @ chalmers.se`

Course web-page. `http://www.math.chalmers.se/Stat/Grundutb/GU/MSG800/A12/`

Responsible university unit. Department of Mathematical Statistics, Mathematica Sciences, Chalmers Tvärgata 3. Expedition: Monday-Friday 9 am - 1 pm.

Literature. *Hwei Hsu: Probability, Random Variables, and Random Processes, 2nd Edition. Schaum's Outlines, McGraw-Hill 2010.* The book is available from Cremona Chalmer's bookshop at a very low cost. Additional computer exercises will be distributed during the course and will be available through the course web-page.

Content of course. Chapters 1-5, Sections 6.1-6.5 and Chapter 9 in Hsu's book.

Prerequisites for the course is any first university level course in mathematical statistics. (That is, basic knowledge of theory for probability and statistics). The course is given in english.

Examination. Written exam 4 hours pm Monday 17 December 2012 in V, with reexams in April 2013 and in August 2013. Permitted aids on the written exam are either two A4-sheets (4 pages) of hand-written notes (xerox-copies and/or computer print-outs are not allowed) or Beta (but not both these aids). The written exam will have 6 tasks that are worth 5 points each. Of the maximal total 30 points you need 12 points for grade 3/G, 18 points for grade 4, 21 points for grade VG and 24 points for grade 5, respectively.

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. The course has 14 lectures according to the following schedule:

Lectures	Day	Time and place	Programme
Lecture 1	Tuesday 30 October	10.00-11.45 am in Euler	Ch. 1-2 in Hsu's book
Lecture 2	Wednesday 31 October	8.00-9.45 am in Euler	Ch. 3 in Hsu's book
Lecture 3	Thursday 1 November	10.00-10.45 am in Euler	Ch. 4 in Hsu's book
Lecture 4	Tuesday 6 November	10.00-11.45 am in Euler	Ch. 5 in Hsu's book
Lecture 5	Wednesday 7 November	8.00-9.45 am in Euler	Ch. 5 in Hsu's book
Lecture 6	Tuesday 13 November	10.00-11.45 am in Euler	Ch. 5 in Hsu's book (cont.)
Lecture 7	Wednesday 14 November	8.00-9.45 am in Euler	Ch. 5 in Hsu's book (cont.)
Lecture 8	Tuesday 20 November	10.00-11.45 am in Euler	Ch. 5 in Hsu's book (cont.)
Lecture 9	Wednesday 21 November	8.00-9.45 am in Euler	Ch. 6 in Hsu's book
Lecture 10	Tuesday 27 November	10.00-11.45 am in Euler	Ch. 6 in Hsu's book (cont.)
Lecture 11	Wednesday 28 November	8.00-9.45 am in Euler	Ch. 6 in Hsu's book (cont.)
Lecture 12	Tuesday 4 December	10.00-11.45 am in Euler	Ch. 9 in Hsu's book
Lecture 13	Wednesday 5 December	8.00-9.45 am in Euler	Ch. 9 in Hsu's book (cont.)
Lecture 14	~~Tuesday 11 December~~ Thursday 13 December	10.00-11.45 am in Euler	Spare

Exercises. See the web-page for exercises
`http://www.math.chalmers.se/Stat/Grundutb/GU/MSG800/A12/Exercises/Exercises.html`