Course Programme MSG800/MVE170 Basic Stochastic Processes, 7.5 credits, 2nd quarter Fall 2011

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/A11/`

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 12 December 2011 in V, with reexams am Thursday 12 April 2012 in V and am Saturday 25 August 2012 in V. 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 13 regular lectures plus an extra Lecture X that is intended to give extra support and advice to students who feel that they have a somewhat insufficient background in math (e.g., topics like Fourier transforms, convolutions, delta-functions, etc.).

Lectures	Day	Time and place	Programme
Lecture 1	Tuesday 25 October	10.00-11.45 am in Euler	Ch. 1-2 in Hsu's book
Lecture 2	Thursday 27 October	10.00-11.45 am in Euler	Ch. 3 in Hsu's book
Lecture 3	Friday 28 October	10.00-11.45 am in Euler	Ch. 4 in Hsu's book
Lecture 4	Thursday 3 November	10.00-11.45 am in Euler	Ch. 5 in Hsu's book
Lecture 5	Friday 4 November	10.00-11.45 am in Euler	Ch. 5 in Hsu's book (cont.)
Lecture 6	Thursday 10 November	10.00-11.45 am in Euler	Ch. 5 in Hsu's book (cont.)
Lecture 7	Friday 11 November	10.00-11.45 am in Euler	Ch. 5 in Hsu's book (cont.)
Lecture 8	Thursday 17 November	10.00-11.45 am in Euler	Ch. 5 in Hsu's book (cont.)
Lecture 9	Friday 18 November	10.00-11.45 am in Euler	Ch. 6 in Hsu's book
Lecture 10	Thursday 24 November	10.00-11.45 am in Euler	Ch. 6 in Hsu's book (cont.)
Lecture 11	Friday 25 November	10.00-11.45 am in Euler	Ch. 6 in Hsu's book (cont.)
Lecture 12	Thursday 1 December	10.00-11.45 am in Euler	Ch. 9 in Hsu's book
Lecture X	Thursday 1 December	3.15-5.00 pm in Euler	Selected topics in Math
Lecture 13	Friday 2 December	10.00-11.45 am in Euler	Ch. 9 in Hsu's book (cont.)

Exercises. See the web-page for exercises
`http://www.math.chalmers.se/Stat/Grundutb/GU/MSG800/A11/Exercises/Exercises.html`