MATH 303/201 **Introduction to Stochastic Processes** **Jan-Apr, 2013**

Instructor: Dr. G. Slade, Math Annex 1211, 604-822-3781, `slade@math.ubc.ca`.

Office hours: Mon. 15:00–15:50, Wed. 13:00–13:50, Fri. 10:00–10:50, or by appointment.

Course webpage: `http://www.math.ubc.ca/~slade/303-web-13.html`.

Prerequisites: One of MATH 302, STAT 302.

Text: The course text is S.M. Ross, "Introduction to Probability Models," 10th edition, Academic Press, (2010). The 9th edition is indistinguishable for our purposes apart from possible changes to page numbers, and you should feel free to use it. Problems assigned from the text will be identical in both the 9th and 10th editions.
An optional more advanced reference is G.R. Grimmett and D.R. Stirzaker, "Probability and Random Processes," 3rd edition, Oxford, (2001).

Outline: The course will be based primarily on topics from Chapters 4, 5, 6 of Ross. The main topics are:

1. discrete time Markov chains
2. exponential distribution and Poisson process
3. continuous time Markov chains

Evaluation: There will be homework assignments, two tests, and a final exam.

Homework: Nine assignments will be given and marked for credit. Assignments are due at the beginning of class on the due date. No late assignments will be accepted. The assignment schedule is as follows:

Assignment given	Assignment due
January 4	January 11
January 11	January 18
January 18	January 25
January 25	February 1
February 8	February 15
February 15	March 1
March 1	March 8
March 8	March 15
March 22	April 3

Tests: There will be two 50-minute tests held during the regularly scheduled class hours on the following dates:

Wednesday, February 6, Wednesday, March 20.

Missing a test normally results in a mark of zero. Exceptions may be granted in two cases: prior consent of the instructor or a medical emergency. In the latter case, the instructor must be notified within two working days of the missed test, and presented with a doctor's note immediately upon the student's return to UBC. When an exception is granted for a missed test, there is no make-up test, and the final exam mark will be used.

Final exam: There will be a final examination during the April examination period.

Final mark: The final mark will be calculated as follows:

Homework: 10%
Tests: 20% each
Final exam: 50%

Updated December 27, 2012.