Content Stochastic Processes 2WB08, academic year: 2009-2010

Book: Stochastic Processes by S.M. Ross (Wiley, New York, 2nd ed., 1996)

Chapter 3: Renewal Theory See A. Lopker webpage.

Chapter 6: Martingales Section 6.1: all Section 6.2: all Section 6.3: all Section 6.4: without Theorem 6.4.4, Corollary 6.4.5, Theorem 6.4.8. Note that martingale convergence theorem (Th. 6.4.6) was proved in the L_1 version using up-crossing inequality.

Chapter 7: Random walks See A. Lopker webpage. Section 7.3: all.

Chapter 8: Brownian Motion Section 8.1: all Section 8.2: all Section 8.3: all Section 8.4: without examples 8.4A,B,C. Section 8.5: all

Remark: Handouts with exercises on Chap.6,7 and 8 have been distributed during the lectures. They can be found at *http://www.win.tue.nl/cgiardin/.* Se also A. Lopker webpage.