

Content Stochastic Processes 2WB08

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

Chapter 3: until Section 3.6 (Renewal reward processes), without Section 3.4.3 (Age-dependent branching processes) and without Example 3.5(A).

Useful exercises: 3.2, 3.4, 3.7, 3.8, 3.9, 3.12, 3.13, 3.16, 3.17, 3.19, 3.25a.

Chapter 6: until Section 6.4 (Submartingale, supermartingale and the martingale convergence theorem).

Chapter 7: until Section 7.5 (Blackwell's theorem on the line).

Useful exercises: 7.2, 7.4, 7.5, 7.7, 7.9, 7.10, 7.11.

Chapter 8: until Section 8.5 (Backward and forward diffusion equations).

Remark: Handouts with exercises on Chap.6 and 8 have been distributed during the lectures.