

This is a tentative schedule, subject to change.

Lecture	Date	Topic	Assigned	Due
1	Thursday, April 4, 13	Math precision; Markov chains review and ODEs/expm	Hwk 1, Hwk 2	
2	Tuesday, April 9, 13	Modeling and Markov chains with rewards		Hwk 1
3	Thursday, April 11, 13	Hidden Markov models and filtering		
4	Tuesday, April 16, 13	Renewal processes	Hwk 3	Hwk 2
5	Thursday, April 18, 13	Renewal processes: limit theorems		
6	Tuesday, April 23, 13	Renewal equation	Hwk 4	Hwk 3
7	Thursday, April 25, 13	Renewal processes: inspection paradox		
8	Tuesday, April 30, 13	Slack	Hwk 5	Hwk 4
9	Thursday, May 2, 13	SMPs and phase-type distributions		
10	Tuesday, May 7, 13	Filtrations; Martingale Definition	Hwk 6	Hwk 5
11	Thursday, May 9, 13	Optional stopping and Markov random walks		
12	Tuesday, May 14, 13	Sequential hypothesis testing, Wald's Equation	Hwk 7	Hwk 6
13	Thursday, May 16, 13	Jensen's inequality, Chernoff bound, and large deviations		
14	Tuesday, May 21, 13	MDPs, MDP structural properties	Hwk 8	Hwk 7
15	Thursday, May 23, 13	Brownian motion: properties, definitions, and Donsker's thm.		
16	Tuesday, May 28, 13	Brownian motion properties and SDE definition	Hwk 9	Hwk 8
17	Thursday, May 30, 13	Common SDEs and simulating them		
18	Tuesday, June 4, 13	SDEs and PDEs		
19	Thursday, June 6, 13	Slack		
	Tuesday, June 11, 13			Hwk 9