Class dates with final schedule – TENTATIVE (to be finalized soon)

Note:
(i)Book sections do not correspond exactly to what I cover in the class. Always read the class notes too.
(ii) The date and time of the midterm and final exams are indicated on the schedule.
(iii) About the quizzes (not shown on the schedule): I will give a number of very simple 5-minute quizzes, usually consisting of 5 multiple-choice questions, based on the material covered the last couple of lectures before the day during which the quiz takes place.

		Topic	Leon-Gar.	Gubner	Ross
1	Tu 08/22	Set theory, Probability	2.1, 2.2, 2.8	1.1-1.4	1.2-1.3
2	Th 08/24	Conditional Probability, Independence	2.4, 2.5	1.5-1.6	1.4-1.6
3	Tu 08/29	Combinatorics Q1, HW1 OUT	2.3, 2.6	1.7	-
4	Th 08/31	Discrete random variables, PMF, Important d.r.v.'s	3.1-3.2, 3.5	2.1, 2.2, 3.1, 3.2, 5.2	2.1-2.2
5	Tu 09/05	Continuous random variables, CDF, PDF Important c.r.v.'s Q2, HW1 IN, HW2 OUT	4.1, 4.2, 4.4	4.1, 5.1, 5.5	2.3
6	Th 09/07	Functions of a r.v. Generation of r.v.'s	4.4, 4.5, 3.6, 4.9	5.4	2.4, 11.2
7	Tu 09/12	Expectation and variance (examples for important rv's) Q3, HW2 IN, HW3 OUT	3.3, 4.3, 4.4	2.4, 4.2, 4.4	2.4
8	Th 09/14	Jointly distributed rv's	5.1-5.5	2.3	2.5
9	Tu 09/19	Moments, covariance and correlation, Functions of multiple r.v.'s HW3 IN, HW4 OUT	5.6, 5.8, 6.2	2.4	2.5
10	Th 09/21	Characteristic function, Inequalities Q4	4.6, 4.7	4.3	2.6, 2.8
11	Tu 09/26	Conditional probability and expectation	3.4, 5.7	3.4, 3.5	3.2-3.5
12	Th 09/28	(Gaussian) Random vectors Law of large numbers with proof (of WLLN) Q5, HW4 IN, HW5 OUT	6.1, 6.3, 6.4 7.1, 7.2, 7.3	8.2, 9.2-9.5 3.3	2.8
13	Tu 10/03	Central limit theorem with proof, Convergence	7.3, 7.4	5.6, 14.1-14.3	2.8
14	Th 10/05	Sample mean and variance, parameter estimation, MLE Q6	8.1-8.3	6.1-6.2	-
15	Tu 10/10	Uncertainty of r.v.s, Entropy Q7, HW5 IN	4.10	-	-

-	Th 10/12	Fall Recess			
16	Tu 10/17	Logistic Regression, MLE, and Entropy HW6 OUT	-	-	-
17	Th 10/19	Midterm review	-	-	-
18	Tu 10/24	MIDTERM	-	-	-
19	Th 10/26	Random Processes, Discrete time Markov chains	9.1, 9.2, 11.1, 11.2	12.1-12.3	2.9,4.1-4.3
20	Tu 10/31	Limiting probabilities of DTMCs Q8, HW6 IN, HW7 OUT	11.3	12.4	4.3, 4.4
21	Th 11/02	DTMC examples Q9	-	-	4.5
22	Tu 11/07	Poisson process HW7 IN, HW8 OUT	9.4	11.1	5.2, 5.3
23	Th 11/09	Continuous time Markov chains Q10	11.4	12.5	6.2-6.4
24	Tu 11/14	Limiting probabilities of CTMCs HW8 IN, HW9 OUT	11.4	12.5	6.5
25	Th 11/16	Queueing theory fundamentals Q11	12.2, 12.3	-	8.1-8.2
26	Tu 11/21	Exponential models (M/M/*), Open networks of queues Q12, HW9 IN, HW10,11 OUT (for parts of HW11 you need lecture 27)	12.4, 12.8, 12.9	-	8.3, 8.4
-	Th 11/23	Thanksgiving Holiday	-	-	-
27	Tu 11/28	Open network of queues, Heavy tailed distributions, M/G/1 Q13	12.6, 12.7, 12.8, 12.9	-	8.4, 8.5
28	Th 11/30	Final review HW11 IN, HW10 IN			
	Tu 12/12	FINAL: 8am-10am, per university schedule			