ECE 131A
Probability
Instructor: Lara Dolecek

Syllabus
Monday 1/4/2021

Lecture #	Date	Assignment	Reading	Topics (course outcome numbers)
L1	1/4/21	HW 1 out	ch. 2.1–2.2	Sample space. Set properties. Axioms of probability. (1,2,3)
L2	1/6/21		ch. 2.3	Counting methods. Combinatorics. Permutations and Combinations. (4)
L3	1/11/21	**HW 1 due**, HW 2 out	ch. 2.4–2.5	Conditional probability. Bayes rule. (5,6)
L4	1/13/21		ch. 3	Discrete RVs. PMF. Expectations. (8,9)
L5	1/18/21			**UNIVERSITY HOLIDAY**
L6	1/20/21	**HW 2 due**, HW 3 out	ch. 3, 2.6	Discrete RVs, Experiments. (7,8,9)
L7	1/25/21			**EXAM 1**
L8	1/27/21		ch. 4.1 – 4.3	CDF. PDF (9)
L9	2/1/21	**HW 3 due**, HW 4 out	ch. 4.4	Important discrete and continuous RVs. (7,10,11)
L10	2/3/21		ch. 4.5	Functions of RVs. (11)
L11	2/8/21	**HW 4 due**, HW 5 out	ch. 4.7	Transform methods. Characteristic function. (13)
L12	2/10/21		ch. 4.6, 4.9	Markov and Chebyshev inequalities. Computer methods. Matlab Project. (12,18,19)
L13	2/15/21			**UNIVERSITY HOLIDAY**
L14	2/17/21	**HW 5 due**, HW 6 out	ch. 5.1 – 5.5	Pairs of RVs. Marginal and conditional PDFs. Joint CDF. (14)
L15	2/22/21			**EXAM 2**
L16	2/24/21		ch. 5.6 – 5.10	Functions of two RVs. (14)
L17	3/1/21	**HW 6 due**, HW 7 out	ch. 6.4	Jointly Gaussian RVs.
L18	3/3/21		ch. 7.1-7.3	Sums of RVs. Law of large numbers. Central limit theorem. (15,16)
L19	3/8/21	**HW 7 due**	ch. 8	Chi-square test. Statistics. (17)
L20	3/10/21			Statistics & Final review.
	3/19/21			**FINAL 3-6 pm**