Week Date Lecture Topics Read sections Homework 1 27-Aug Introduction, Set Theory 1.1 1.23, 1.2.4 1.2.1, 1.3.2 1.2.1, 1.3.2 1.2.1, 1.3.2 1.2.1, 1.3.2 1.2.1, 1.2.2 1.2.1, 1.2.2 1.2.1, 1.2.2 1.2.1, 1.2.2 1.2.1, 1.2.2 1.2.1, 1.2.2 1.2.1, 1.2.2 1.2.1, 1.2.2 1.2.1, 1.2.2		Tentative schedule for STAT 345/445 - Updated regularly!				8/26/24
1					Read	
1	Week	Date	Lecture Topics		sections	Homework
29-Aug Fundamentals of Probability Theory 3	1	27-Aug	Introduction, Set Theory		1.1	
2 5-Sep Conditional probability and Independence 1.3 HW1		29-Aug	Fundamentals of Probability Theory		1.2.1, 1.2.2	
10-Sep Random Variables and distr. Functions 1.4 - 1.5	2	3-Sep	Counting		1.2.3, 1.2.4	
12-Sep Density and mass functions 1.6		5-Sep	Conditional probability and Independence		1.3	HW1
12-Sep Density and mass functions 17-Sep Functions of a random variable Functions of a random variable Functions of a random variable and 19-Sep expected values 24-Sep Moments and moment generating functions 26-Sep Differentiating under an integral sign 24-HW 3 1-Oct Common discrete families 3.1-3.2 7 8-Oct Common discrete families Quiz 2 (30 min) 3.2 8-Oct Common continuous families 3.3 HW 4 15-Oct Exponential families. Location and scale families. 3.4-3.5 17-Oct Midterm Exam (75 min) 22-Oct Fall Break 24-Oct Location and scale families. Chebtchev's inequality 3.6.1 29-Oct Multiple random variables 4.1 29-Oct Joint, marginal and conditional distributions 4.1-4.2 HW 5 5-Nov Conditional distributions and independence 7-Nov Bivariate transformations. Quiz 3 (30 min) 4.3 12-Nov Hierarchical models 13 1-Ox Sums of random variables 21-Nov Sums of random variables 3-Dec Order Statistics 5.4	3	10-Sep	Random Variables and distr. Functions		1.4 - 1.5	
Functions of a random variable and 19-Sep expected values 24-Sep Moments and moment generating functions 25 26-Sep Differentiating under an integral sign 6 1-Oct Common discrete families 3-Oct Common discrete families 3-Oct Common discrete families 3-Oct Common continuous families 3-Oct Exponential families. Location and scale families. 3-Oct Exponential families. Location and scale families. 3-Oct Fall Break 9 24-Oct Nidterm Exam (75 min) 22-Oct Fall Break 9 24-Oct Location and scale families. Chebtchev's inequality 3-Oct Joint, marginal and conditional distributions 4-1-4-2 HW 5 11 5-Nov Conditional distributions and independence 4-2 7-Nov Bivariate transformations. Quiz 3 (30 min) 4-3 12-Nov Hierarchical models 4-4 14-Nov Covariance and correlation, n>2 4-S,4.6 HW 6 19-Nov Random samples 5-1 14 19-Nov Sums of random variables 5-2 HW 7 26-Nov Sampling from the normal distribution Quiz 4 (30 min) 5-3 3-Dec Order Statistics 5-4		12-Sep	Density and mass functions		1.6	HW 2
19-Sep expected values	4	17-Sep	Functions of a random variable		2.1	
24-Sep Moments and moment generating functions 26-Sep Differentiating under an integral sign 24- HW 3 1-Oct Common discrete families 3.1-3.2 3-Oct Common discrete families 3.1-3.2 8-Oct Common discrete families 3.3 10-Oct Common continuous families 3.3 HW 4 15-Oct Exponential families. Location and scale families. 3.4-3.5 17-Oct Midterm Exam (75 min) 22-Oct Fall Break 24-Oct Location and scale families. Chebtchev's inequality 31-Oct Joint, marginal and conditional distributions 4.1-4.2 10 29-Oct Multiple random variables 31-Oct Joint, marginal and conditional distributions 4.1-4.2 HW 5 11 5-Nov Conditional distributions and independence 7-Nov Bivariate transformations. Quiz 3 (30 min) 4.3 12-Nov Hierarchical models 14-Nov Covariance and correlation, n>2 4.5,4.6 HW 6 19-Nov Random samples 21-Nov Sums of random variables 21-Nov Sums of random variables 22-Nov Thanksgiving Break 3-Dec Order Statistics 5.4			Functions of a random variable and			
26-Sep Differentiating under an integral sign 2.4 HW 3		19-Sep	expected values Quiz 1 (3	0 min)	2.1, 2.3	
26-Sep Differentiating under an integral sign 2.4 HW 3	5	24-Sep	Moments and moment generating functions		2.3	
3-Oct Common discrete families Quiz 2 (30 min) 3.2		26-Sep			2.4	HW 3
3-Oct Common discrete families Quiz 2 (30 min) 3.2 8-Oct Common continuous families 3.3 10-Oct Common continuous families 3.3 HW 4 8 15-Oct Exponential families. Location and scale families. 3.4-3.5 17-Oct Midterm Exam (75 min) 3.4-3.5, 3.4-3.5, 3.6.1 22-Oct Fall Break 3.4-3.5, 3.6.1 29-Oct Multiple random variables 4.1 31-Oct Joint, marginal and conditional distributions 4.1-4.2 HW 5 5-Nov Conditional distributions and independence 4.2 7-Nov Bivariate transformations. Quiz 3 (30 min) 4.3 12 12-Nov Hierarchical models 4.4 14-Nov Covariance and correlation, n>2 4.5,4.6 HW 6 19-Nov Random samples 5.1 21-Nov Sums of random variables 5.2 HW 7 26-Nov Sampling from the normal distribution Quiz 4 (30 min) 5.3 28-Nov Thanksgiving Break 5.4	6	1-Oct	Common discrete families		3.1-3.2	
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5-Dec Order Statistics 5.4 HW 8	15	3-Dec	Order Statistics		5.4	
		5-Dec	Order Statistics		5.4	HW 8

Final exam Tuesday December 17, 2023