COURSE OUTLINE: The following should only be used as a guideline. It is subject to change

Lecture	Date	Topic/Textbook Section
1	**08/25**	Introduction and Syllabus, 1.1: Probabilities as Proportions
2	08/27	1.2: Exact Calculation and Bounds 1.3: Fundamental Rules
3	**08/30**	2.1: The Chance of an Intersection
4	**09/01**	2.2: Symmetry in Simple Random Sampling 2.3: Bayes Rule
5	09/03	2.4: Uses and Interpretations 2.5: Independence
6	**09/08**	3.1: Success and Failure 3.2: Random Variables
7	**09/10**	3.3: Binomial Distribution 3.2: Hypergeometric Distribution
8	**09/13**	3.4: Examples
9	**09/15**	4.1: Cumulative Distribution Functions
10	**09/17**	4.2: Waiting Times – Negative Binomial Distribution
11	**09/20**	4.3: Exponential Approximations 4.4: Poisson Distributions
12	**09/22**	5.1: Definition 5.2: Functions of Random Variables
13	**09/24**	5.2: Functions of Random Variables cont. 5.3: Methods of Indicators
14	**09/27**	5.3: Unbiased Estimators
15	**09/29**	5.5: Conditional Expectation 5.6: Expectation by Conditioning
16	**10/01**	6.1: Variance and Standard Deviation 6.2: Simplifying the Calculation
17	**10/04**	6.3: Markov's Inequality 6.4: Chebyshev's Inequality
Midterm Review	10/06	
Midterm	**10/08**	
18	**10/11**	7.1: Sum of Independent Random Variables
19	10/13	7.2: Sampling without Replacement 7.3: Law of Averages
20	**10/15**	8.1: Distribution of the Sample Sum (and the Sample Mean)
21	**10/18**	8.2: Standard Normal Curve
22	10/20	8.3: Normal Approximation 8.4: How Large is Large
23	**10/22**	9.1: Testing Hypotheses
24	**10/25**	9.2: A/B Testing: Fisher's Exact Test
25	10/27	9.3: Confidence Intervals: Method
26	**10/29**	9.4: Confidence Intervals: Interpretation
27	**11/01**	10.1: Density 10.2: Expectation and Variance
28	**11/03**	10.3: Exponential Distribution
29	**11/05**	10.4: Normal Distribution
30	**11/08**	11.1: Bias and Variance Section 11.2: The German Tank Problem
31	**11/10**	11.3: Least Squares Regression
32	**11/12**	11.4: Bounds on Correlation
33	**11/15**	11.5: The Error in Regression
34	**11/17**	12.1: The Simple Linear Regression Model
35	**11/19**	12.1: The Simple Linear Regression Model cont.
36	**11/22**	12.2: The Distribution of the Estimated Slope
37	**11/29**	12.3: Towards Multiple Regression
38	**12/01**	To be Decided
39	**12/03**	To be Decided
Final Review	**12/06**	
Final Review	**12/08**	
Final Review	**12/10**	