Unless otherwise stated, all homework will be due at the beginning of the following class.

| Date | Topic | Homework |
|---------------------|---|--|
| 8/25 | Section 0 - Review of Algebra and Calculus | HW (not collected) |
| -, | | Problem Set 0: pp.25-28 #1-15 HW 1 |
| 8/27 | Section 1 - Basic Probability Concepts | Problem Set 1: pp.49-50 #1-7 |
| | | HW 2 |
| 9/1 | Section 2 - Definition of Conditional Probability, | Problem Set 2: pp. 71-78 #1-9, 15, 21, 24, 26, |
| | Independent Events | 27 |
| 0./9 | Section 2 - Bayes' Rule, Bayes' Theorem, and the Law of Total Probability | HW 3 |
| 9/3 | | Problem Set 2: pp.73-77 #10-14, 16-20, 22, 23, |
| - 1- | | 25 HW 4 |
| 9/8 | Section 3 - Combinatorial Principles | Problem Set 3: pp.103-105 #1-11 |
| 9/10 | Section 4 - Random Variables and Probability Distributions, Independent Random Variables | HW 5 |
| | | Problem Set 4: pp.127-130 #1-4, 7, 8, 13, 16 |
| | Section 4 - Conditional Distribution, Maximum of Independent Random Variables | HW 6 |
| 9/15 | | Problem Set 4: pp.127-130 #5, 6, 9-12, 14, |
| 0 /17 | - | 15, 17 |
| 9/17 $9/22$ | Review for Midterm Exam 1 Midterm Exam 1 | |
| $\frac{9/22}{9/24}$ | Review Midterm Exam | |
| 3/24 | | HW 7 |
| 9/29 | Section 5 - Expected Value; Percentiles, Median, | Problem Set 5: pp.153-156 #1-6, 8, 16, 17, 22, |
| , | and Mode | 25 |
| 10/1 | Section 5 - Variance and Standard Deviation; Chebyshev's Inequality | HW 8 |
| 10/1 | | Problem Set 5: pp.154-158 #7, 9, 11, 20, 21, 23, |
| | Section 5 - Moments of a Random Variable, | 24, 26, 27 HW 9 |
| 10/6 | Moment Generating Function | Problem Set 5: pp.155-157 #10, 12-15, 18, 19 |
| | Section 6 - Discrete Uniform Distribution, | HW 10 |
| 10/8 | Binomial Distribution, Geometric Distribution, | Problem Set 6: pp.181-185 #1-6, 10-13, 15-17, |
| , | Multinomial Distribution | 20, 22, 23 |
| 10/13 | Fall Break 10/12-10/13 | , , |
| | Section 6 - Poisson Distribution, Negative | HW 11 |
| 10/15 | Binomial Distribution, Hypergeometric | Problem Set 6: pp.182-186 #7, 9, 14, 18, 19, 21, |
| | Distribution | 24, 25-27 |
| 10 /90 | Section 7 - Continuous Uniform Distribution, | HW 12 |
| 10/20 | Exponential Distribution | Problem Set 7: pp.211-214 #1-5, 9, 12-15 |
| | Section 7 - Normal Distribution, Gamma | Problem Set 6: p. 182 #8 HW 13 |
| 10/22 | Distribution Ostribution, Gamma | Problem Set 7: pp.212-214 #6-8, 10, 11, 16-18 |
| | Section 8 - Joint Distributions, Marginal Distributions | HW 14 |
| 10/27 | | Problem Set 8: pp.243-254 #2-5, 7, 10, 12, 13, |
| | | 18, 24, 26-30, 32, 36, 49 |
| 10.15 | Section 8 - Independence of Random Variables, Conditional Distributions | HW 15 |
| 10/29 | | Problem Set 8: pp.243-254 #1, 6, 8, 9, 15, 17, |
| | | 19, 20, 25, 31, 34, 48 |
| 11/3 | Section 8 - Covariance and Correlation Between | HW 16 Problem Set 8: pp.245-253 #11, 14, 16, 21-23, |
| 11/0 | Random Variables | 33, 35, 37-47 |
| 11/5 | Review for Midterm Exam 2 | 00, 00, 01-41 |
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| 11/10 | Midterm Exam 2 | |
|-------|---|--|
| 11/12 | Review Midterm Exam 2 | |
| 11/17 | Section 9 - Transformations of Random Variables | HW 17 Problem Set 9: pp.289-292 #1, 3-6, 10-12, 16 |
| 11/19 | Section 9 - Order Statistics, Mixtures of Distributions | HW 18 Problem Set 9: pp.290-297 #9, 13-15, 17, 18, 21-26, 31, 33, 36-41 |
| 11/24 | Section 9 - Review | HW 19 Problem Set 9: pp.290-296 #2, 7, 8, 19, 20, 27-30, 32, 34, 35 |
| 11/26 | Thanksgiving Break 11/25-11/28 | |
| 12/1 | Section 10 - Risk Management Concepts | HW 20 Problem Set 10: pp.325-335 #1, 3-6, 8, 16, 18, 20, 21, 23, 26, 27, 31, 38-40 |
| 12/3 | Section 10 - Review | HW (not collected) Section 10: pp.325-335 # 2, 7, 9-15, 17, 19, 22, 24, 25, 28-30, 32-37 |
| 12/8 | Review for Final Exam | |
| 12/10 | Review for Final Exam | |
| | | |
| | Final Exam | |
| | Time: 8:00am Thursday, December 17th Location: UNIV 003 | |