

STAT 381 Mathematical Statistics SUMMER 2024

COURSE SCHEDULE

<i>No.</i>	<i>Date</i>	<i>Topic</i>	<i>Section</i>
1	M, Jul. 8	Intro, review of distributions	Chapters 3,4
2	W, Jul. 10	Central Limit theorem, order statistics, maximum likelihood estimator, method of moments estimator,	7.3, 6.7 9.7, 9.6
3	Th, Jul. 11	Unbiased estimator, consistency, conditional distribution, sufficiency	8.2, 9.3 5.3
4	M, Jul. 15	Homework 1 is due , sufficiency, factorization theorem	9.4
5	W, Jul. 17	minimum-variance unbiased estimator, Rao-Blackwell theorem	9.4, 9.5
6	Th, Jul. 18	Confidence intervals, computation of CIs based on pivots, large-sample confidence interval for μ , required sample size	8.5
7	M, Jul. 22	Homework 2 is due , confidence intervals for $\mu_1 - \mu_2$, p , and $p_1 - p_2$	8.5
8	W, Jul. 24	elements of a statistical test, one-sample z -test for μ , p -value, power of a test	10.2, 10.3 10.5
9	Th, Jul. 25	Review for midterm exam	
10	M, Jul. 29	Homework 3 is due, Midterm Exam	
11	W, Jul. 31	Relation between alpha and beta in a z -test, rejection region, relation between hypothesis testing and confidence interval, z -test for p and $p_1 - p_2$	10.5, 10.6 10.10, 10.8
12	Th, Aug.1	t -distribution, small-sample t -test and CI for μ , small-sample t -test and CI for $\mu_1 - \mu_2$	8.8, 10.8
13	M, Aug. 5	Homework 4 is due , Test and CI for one variance, test and CI for two variances	8.5 10.9
14	W, Aug. 7	Likelihood-ratio test	10.11
15	Th, Aug. 8	Likelihood-ratio test	10.11
16	M, Aug. 12	Contingency tables, chi-squared test, goodness of fit test	14.2, 14.4, 14.5
17	W, Aug. 14	Review for final exam	
18	Th, Aug. 15	Homework 5 is due, Final Exam	