

STAT 252.001 Winter 2005
Syllabus

Week 1

Friday, January 7

Introduction; Review of Stat 251 Final Exam

Week 2

Monday, January 10

Wednesday, January 12

Friday, January 14

What is a Statistic? (Ch 1); Sampling Distributions (Ch 7)

Estimators, Statistics, Parameters (§8.1, §8.2, §8.3)

Evaluating Estimators (§8.4); Confidence Intervals (§8.5)

Week 3

Monday, January 17

Wednesday, January 19

Friday, January 21

Assignment #1 Due

Large-Sample Confidence Intervals (§8.6)

Selecting the Sample Size (§8.7)

Small-Sample Confidence Intervals (§8.8)

Week 4

Monday, January 24

Wednesday, January 26

Friday, January 28

Assignment #2 Due

Confidence Intervals for σ^2 (§8.9); Summary (§8.10);

Point Estimators (§9.1); Relative Efficiency (§9.2)

Consistency, Sufficiency, Rao-Blackwell (§9.3, §9.4, §9.5)

The Method of Moments (§9.6)

Week 5

Monday, January 31

Wednesday, February 2

Friday, February 4

Assignment #3 Due

The Method of Maximum Likelihood (§9.7)

More Examples (§9.6, §9.7); Summary (§9.9)

Midterm Review

Week 6

Monday, February 7

Wednesday, February 9

Friday, February 11

MIDTERM #1

Hypothesis Testing (§10.1); Elements of a Statistical Test (§10.2)

Common Large-Sample Tests (§10.3)

Week 7

Monday, February 14

Wednesday, February 16

Friday, February 18

Assignment #4 Due

Type II Error and Finding the Z -Test Sample Size (§10.4)

Hypothesis Test–Confidence Interval Duality (§10.5, §10.6, §10.7)

Small-Sample Hypothesis Testing (§10.8)

Week 8

Monday, February 21		NO CLASS
Wednesday, February 23		NO CLASS
Friday, February 25		NO CLASS

Week 9

Monday, February 28	Assignment #5 Due	Testing Hypotheses Concerning Variances (§10.9)
Wednesday, March 2		Power of Tests and Neyman-Pearson (§10.10); Summary (§10.12)
Friday, March 4		Linear Statistical Models (§11.1, §11.2)

Week 10

Monday, March 7	Assignment #6 Due	The Method of Least Squares (§11.3)
Wednesday, March 9		Simple Linear Regression (§11.4)
Friday, March 11		Inference Concerning β_i (§11.5)

Week 11

Monday, March 14	Assignment #7 Due	Inference Concerning Linear Functions of β_i (§11.6)
Wednesday, March 16		Predicting a Particular Value of Y (§11.7)
Friday, March 18	Read §11.9	Correlation (§11.8); Summary (§11.15)

Week 12

Monday, March 21	Assignment #8 Due	Considerations in Designing Experiments (Ch 12)
Wednesday, March 23		NO CLASS (SSP)
Friday, March 25		NO CLASS

Week 13

Monday, March 28	MIDTERM #2	
Wednesday, March 30		The Analysis of Variance (§13.1, §13.2)
Friday, April 1		ANOVA for a One-Way Layout (§13.3, §13.4)

Week 14

Monday, April 4	Assignment #9 Due	One-Way Layout: A Statistical Model (§13.5); Estimation (§13.7)
Wednesday, April 6		χ^2 Goodness-of-Fit Test (§14.1, §14.2, §14.3)
Friday, April 8	Read §14.6	Contingency Tables (§14.4, §14.5); Summary (§14.7)

Week 15

Monday, April 11	Assignment #10 Due	Signed Test for Matched Pairs (§15.1, §15.3)
Wednesday, April 13		Final Exam Review and Course Evaluations
