

Class	In Class	Reading Assignments, OLI Quizzes (LbD=Learn by Doing in OLI) (The numbers in parentheses show how many pages to read)
Class 1: M, Aug. 24	Introduction. Class questionnaire. What is statistics? How to lie with statistics?	Read Unit 1 (2), <i>EDA</i> primer in your workbook, and Unit 2: Exploratory Data Analysis, Module 1—One categorical variable (6)
Class 2: W, Aug. 26	Variable types: categorical and quantitative. EDA for categorical variables. Counts & percents. Pie charts, bar charts.	Read Unit 2—One quantitative variable—graphs (6)
Class 3: M, Aug. 31	Quiz 1. Graphical displays for quantitative variables. Dotplots, histograms, stemplots.	Read Unit 2—One quantitative variable—numerical measures: Measures of Center. Measures of Spread. Boxplot. (10)
Class 4: W, Sept. 2	Numerical measures for quantitative variables. Five number summary, boxplots.	Read Unit 2—One quantitative variable—numerical measures: Standard deviation (3)
M, Sept. 7	No class	
Class 5: W, Sept. 9	Standard deviation. Standard deviation rule.	Take OLI Quiz 1: remember you have only one try. Read Unit 2, Module 2. Role-Type Classification, Case I, Case II (6)
Class 6: M, Sept. 14	Quiz 2. Variable relationships. Role-type classification, Cases I& II. Side-by-side boxplots. Two-way tables.	Read Case III—Scatterplots (5) Linear relationships: first 4 pages (through 4 out of 8) (9)
Class 7: W, Sept. 16	Scatterplots. Matching scatterplots with pairs of variables. Association. Properties of r . Interpretation of r^2 .	Read Case III-- Linear relationships: last 4 pages out of the 8. (4).
Class 8: M, Sept. 21	Least squares regression line. Prediction. Extrapolation.	Read Unit 2, Causation (5)
Class 9: W, Sept. 23	Quiz 3. Causation. Distinction from association. Lurking variables—examples. Simpson's paradox.	
Class 10: M, Sept. 28	Summary. Review.	Take OLI Quiz 2: remember you have only one try.
Class 11: W, Sept. 30	Test 1	Read the <i>Producing Data</i> primer in your workbook, Unit 3 Module 3 (including introduction) (5), Module 4: Designing Studies: Introduction, Identifying Study design, Causation and Observational Studies. (5)
Class 12: M, Oct. 5	Sampling methods, bias. Observational studies and experiments	Read Module 4: Causation and Experiments, Experiments with more than one explanatory variable, Modifications to randomization. Sample surveys, Wrap-up, Summary. (9)
Class 13: W, Oct. 7	Quiz 4. Experimental design. Causation. control, randomized controlled experiments. Blind/double blind, blocks, matched pairs. Surveys.	Take OLI Quiz 3: remember you have only one try. Read Module 8: Continuous Random Variables: Normal Distribution ONLY, up to pg.8 (14)
Class 14: M, Oct. 12	Normal distribution. Z-scores. Applications to probability problems.	Read the <i>Learning Statistical Inference</i> primer in your workbook.

Class 15: W, Oct. 14	What is statistical inference? Parameters vs. statistics. Margin of error. Sampling variability, sampling distributions, CLT (general form).	Read Module 9 (7)
Class 16: M, Oct. 19	Quiz 5. Sampling distributions for proportions	Take OLI Quiz 7: remember you have only one try. Reread <i>Learning Statistical Inference</i> , Parts I-III, and Module 9 (sample proportions part) as necessary.
Class 17: W, Oct. 21	Summary. Review.	
Class 18: M, Oct. 26	Test 2	Reread <i>Learning Statistical Inference</i> , Parts I-III, and Module 9 (sample means part) as necessary.
Class 19: W, Oct. 28	Sampling distributions for means.	Read Module 11: Interval Estimation (13)
Class 20: M, Nov. 2	Introduction to confidence intervals (CI's). CI's for proportions, means.	
Class 21: W, Nov. 4	More about CIs	Reread <i>Learning Statistical Inference</i> , Part IV, Module 11: Hypothesis Testing, Overview (4)
Class 22: M, Nov. 9	Quiz 6. Introduction to hypothesis testing (HT)	Read Module 11: Hypothesis Testing for the Population Proportion (13)
W, Nov. 11	No class	
Class 23: M, Nov. 16	HT for the pop. proportion	Module 11: Hypothesis Testing for Population Mean (9).
Class 24: W, Nov. 18	Quiz 7. HT for the pop. mean	
Class 25: M, Nov. 23	Summary, review.	
Class 26: W, Nov. 25	Test 3	Module 12: Case I, Two Independent Samples (9)
Class 27: M, Nov. 30	Using Inference for Comparisons: Two Population Means; Matched Pairs	
Class 28: W, Dec. 2	Inference for matched pairs	
Class 29: M, Dec. 7	Inference for two proportions	
Class 30: W, Dec. 9	Summary, review, project.	