

Schedule

A week-by-week breakdown of the material.

Week 1 (05/01-05/05)

Day 1 Basic Terminology¹

Visualizing Variables²

Percentiles³

Lab: Introduction to SPSS⁴

Day 2 Measures of Center⁵

Measures of Spread⁶

Linear Transformations⁷

Lab: Computing numerical summaries

Day 3 Density Curves⁸

The Normal Distribution⁹

Lab: Investigations related to normality

Day 4 Relationships between two variables¹⁰

Scatterplots and Correlation¹¹

Lab: Plotting relationships between variables

Day 5 General Theory on Modeling and Data Fitting¹²

Linear Models and Regression Lines¹³

Lab: Regression lines, scatterplot smoothers

¹[notes/basic_terminology.html](https://www.stat.columbia.edu/gelman/notes/basic_terminology.html)

²[notes/visualizing_distributions.html](https://www.stat.columbia.edu/gelman/notes/visualizing_distributions.html)

³[notes/percentiles.html](https://www.stat.columbia.edu/gelman/notes/percentiles.html)

⁴[labs/1.html](https://www.stat.columbia.edu/gelman/labs/1.html)

⁵[notes/measures_center.html](https://www.stat.columbia.edu/gelman/notes/measures_center.html)

⁶[notes/measures_spread.html](https://www.stat.columbia.edu/gelman/notes/measures_spread.html)

⁷[notes/linear_transformations.html](https://www.stat.columbia.edu/gelman/notes/linear_transformations.html)

⁸[notes/density_curves.html](https://www.stat.columbia.edu/gelman/notes/density_curves.html)

⁹[notes/normal_distribution.html](https://www.stat.columbia.edu/gelman/notes/normal_distribution.html)

¹⁰[notes/relationships.html](https://www.stat.columbia.edu/gelman/notes/relationships.html)

¹¹[notes/scatterplot_correlation.html](https://www.stat.columbia.edu/gelman/notes/scatterplot_correlation.html)

¹²[notes/modeling_general.html](https://www.stat.columbia.edu/gelman/notes/modeling_general.html)

¹³[notes/linear_regression.html](https://www.stat.columbia.edu/gelman/notes/linear_regression.html)

Week 2 (05/08-05/12)

Day 1 The question of causation¹⁴

Introduction to Probability¹⁵

Day 2 MIDTERM (study guide¹⁶)

Lab: Project work

Day 3 Conditional Probability¹⁷

Probability rules¹⁸

Independent Events¹⁹

Day 4 Tree Diagrams²⁰

Random Variables²¹

Lab: Project work

Day 5 The Binomial Setting and Distribution²²

Week 3 (05/15-05/19)

Day 1 Mean and Standard Deviation of Random Variables²³

Combining Random Variables²⁴

Mean and Standard Deviation of the Binomial²⁵

Day 2 Binomial: Approximating by Normal²⁶

Day 3 The Sample Mean / IID Setting²⁷

Day 4 MIDTERM 2 (study guide²⁸)

Day 5 At conference

Work on projects

¹⁴[notes/correlation_causation.html](#)

¹⁵[notes/probability_intro.html](#)

¹⁶[notes/midterm1_study_guide.html](#)

¹⁷[notes/probability_conditional.html](#)

¹⁸[notes/probability_rules.html](#)

¹⁹[notes/independent_events.html](#)

²⁰[notes/decision_trees.html](#)

²¹[notes/random_variables.html](#)

²²[notes/binomial.html](#)

²³[notes/rv_mean.html](#)

²⁴[notes/rv_combine.html](#)

²⁵[notes/binomial_mean.html](#)

²⁶[notes/binomial_mean.html](#)

²⁷[notes/iid_setting.html](#)

²⁸[notes/midterm2_study_guide.html](#)

Week 4 (05/22-05/26)

Day 1 Inference I: Confidence Intervals²⁹

Inference II: Hypothesis Tests³⁰

Day 2 TBD

Day 3 TBD

Day 4 **MIDTERM 3** (study guide³¹)

Day 5 Presentations

²⁹[notes/confidence_intervals.html](#)

³⁰[notes/hypothesis_tests.html](#)

³¹[notes/midterm3_study_guide.html](#)