

Schedule

A week-by-week breakdown of the material.

Week 1 (05/01-05/05)

Day 1 Basic Terminology¹

Visualizing Variables²

Lab: Introduction to SPSS³

Day 2 Project Selection⁴

Percentiles⁵

Measures of Center⁶

Measures of Spread⁷

Lab: Describing Variables⁸

Day 3 Linear Transformations⁹

Density Curves¹⁰

The Normal Distribution¹¹

Lab: Project Prep¹²

Day 4 Relationships between two variables¹³

Scatterplots and Correlation¹⁴

Lab: Plotting relationships between variables

Day 5 General Theory on Modeling and Data Fitting¹⁵

Linear Models and Regression Lines¹⁶

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

⁴[notes/projects.html](https://www.stat.columbia.edu/gelman/notes/projects.html)

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

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

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

⁸[labs/2.html](https://www.stat.columbia.edu/gelman/labs/2.html)

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

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

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

¹²[labs/project_prep.html](https://www.stat.columbia.edu/gelman/labs/project_prep.html)

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

¹⁴[notes/scatterplot_correlation.html](https://www.stat.columbia.edu/gelman/notes/scatterplot_correlation.html)

¹⁵[notes/modeling_general.html](https://www.stat.columbia.edu/gelman/notes/modeling_general.html)

¹⁶[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 causation¹⁷

Introduction to Probability¹⁸

Lab: Regression lines, scatterplot smoothers

Day 2 MIDTERM (study guide¹⁹)

Lab: Project work

Day 3 Conditional Probability²⁰

Probability rules²¹

Independent Events²²

Day 4 Tree Diagrams²³

Random Variables²⁴

Lab: Project work

Day 5 The Binomial Setting and Distribution²⁵

Week 3 (05/15-05/19)

Day 1 Mean and Standard Deviation of Random Variables²⁶

Combining Random Variables²⁷

Mean and Standard Deviation of the Binomial²⁸

Day 2 Binomial: Approximating by Normal²⁹

Day 3 The Sample Mean / IID Setting³⁰

Day 4 MIDTERM 2 (study guide³¹)

Day 5 At conference

Work on projects

¹⁷[notes/correlation_causation.html](#)

¹⁸[notes/probability_intro.html](#)

¹⁹[notes/midterm1_study_guide.html](#)

²⁰[notes/probability_conditional.html](#)

²¹[notes/probability_rules.html](#)

²²[notes/independent_events.html](#)

²³[notes/decision_trees.html](#)

²⁴[notes/random_variables.html](#)

²⁵[notes/binomial.html](#)

²⁶[notes/rv_mean.html](#)

²⁷[notes/rv_combine.html](#)

²⁸[notes/binomial_mean.html](#)

²⁹[notes/binomial_mean.html](#)

³⁰[notes/iid_setting.html](#)

³¹[notes/midterm2_study_guide.html](#)

Week 4 (05/22-05/26)

Day 1 Inference I: Confidence Intervals³²

Inference II: Hypothesis Tests³³

Day 2 TBD

Day 3 TBD

Day 4 **MIDTERM 3** (study guide³⁴)

Day 5 Presentations

³²[notes/confidence_intervals.html](#)

³³[notes/hypothesis_tests.html](#)

³⁴[notes/midterm3_study_guide.html](#)