

POLI SCI 403

Probability and Statistics

October 23, 2024

Recommended material

Statistics

Textbooks

- Freedman, David, Robert Pisani, and Roger Purves. 2007. *Statistics*. New York, NY: Norton Accessible undergrad-level introduction
- Imai, Kosuke and Nora Web-Williams. 2022. *Quantitative Social Science: An Introduction in tidyverse*. Princeton University Press Grad-level textbook blending stats and R
- Llaudet, Elena, and Kosue Imai. 2022. *Data Analysis for Social Science: A Friendly a Practical Introduction*. Princeton University Press For complete beginners, light on the math
- Kaplan, Daniel, and Randall Pruim. 2023. *Statistical Modeling: A Fresh Approach* (electronic edition) Focus on building intuition with no math

Regression

- Fox, John. 2016. *Applied Regression Analysis and Generalized Linear Models* (Third Edition). Sage Reference textbook for all sorts of regression models
- Heiss, Andrew. 2024. *Program Evaluation* Step-by-step regression guide

Video lectures

- King, Gary. [Quantitative Social Science Methods I](#) Focus on understanding statistical theory concepts

Parametric models

- Fox, John. 2016. *Applied Regression Analysis and Generalized Linear Models* (Third Edition). Sage
- Comprehensive coverage of parametric models

Missing data

Partial identification

Causal inference in experiments

Causal inference in observational studies

- Cunningham, Scott. 2021. *Causal Inference The Mixtape*
 - Hungtinton-Klein, Nick. 2022. *The Effect: An Introduction to Research Design and Causality*. Chapman & Hall
- Free general textbook
- Free general textbook

Computing

Textbooks

- Hadley Wickham, Mine Çetinkaya-Rundel, and Garrett Golemund. 2023. *R for Data Science (2e)*
- General introduction to R programming