

PLSC 503 – Spring 2017

Introduction

January 10, 2017

“Multivariate Analysis for Political Research”

- “Regression” course
- Texts: Weisberg (2013) and Kennedy (2003)
- Course materials:
<https://github.com/PrisonRodeo/PLSC503-Spring-2017-git>
- Preceptor: Nick Dietrich
- Software: R > Stata
- Grading: Ten homework assignments (@ 50 points), plus a final project (500 points)

Things We Won't Do

“Regression”:

$$Y = f(\mathbf{X})$$

Multivariate regression:

$$\mathbf{Y} = f(\mathbf{X})$$

Measurement (e.g. PCA):

$$\mathbf{Y} = \mathbf{W}^T \mathbf{X}$$

Classification:

- Cluster Analysis
- Classification and Regression Trees \rightarrow Random Forests.
- Pattern Recognition
- Machine Learning, Support Vector Machines, etc.