

Federal University of Pernambuco
Political Science Department
PS 015 - Replication and Transparency in Empirical Research
SUMMER 2016

Instructors: Dr. Dalson Figueiredo (dalson.figueiredofo@ufpe.br) and Dr. Enivaldo Rocha (enivaldocrocha@gmail.com)
Time and Location: Wednesday, 14:00 - 18:00, CFCH, (PS dept, 14^o flor), Maria Gorete Hall.

Office Hours: Monday 8:00 - 11:30
Tuesday 8:00 - 11:30
Thursday 8:00 - 11:30

Course outline:

This course is an introduction to replication and transparency in Political Science empirical research. The course is organized in three sections. The first one provides a overview of basic mathematical notation and statistical reasoning. The second part will introduce the main features of reproducible research using Stata and other tools. The third section will cover linear regression applications and diagnostics using both simulation and replication.

Required readings:

- Moore, Will H. and David A. Siegel. 2013. A Mathematics Course for Political and Social Research. Princeton, NJ: Princeton University Press.
- Kellstedt, Paul M., and Guy D. Whitten. 2013. The Fundamentals of Political Science Research. 2nd ed. Cambridge ;New York: Cambridge University Press.
- King, Gary. Replication, Replication. PS: Political Science & Politics, v. 28, n. 03, p. 444-452, 1995.
- Janz, Nicole. Bringing the Gold Standard into the Classroom: Replication in University Teaching. International Studies Perspectives, 2015.
- Miguel, et al (2014). Promoting Transparency in Social Science Research, Science, VOL 343, 10.1126/science.1245317.
- Christensen, Garret and Courtney Soderberg. (2014). "Manual of Best Practices in Transparent Research", unpublished working paper.
- The TIER Documentation Protocol v2.0

Stata tutorials:

- Baum, Christopher F. 2006. An Introduction to Modern Econometrics Using Stata. Stata Press
- Cameron, Colin and Pravin Trivedi. 2010. Microeconometrics Using Stata. 2nd ed. Stata Press
- Rodríguez, Germán. 2011. Stata Tutorial. See: <http://data.princeton.edu/stata/>.
- UCLA Academic Technology Services. See: <http://www.ats.ucla.edu/stat/stata/default.htm>.

Suggested readings:

- Angrist, Joshua D. and Jörn-Steffen Pischke. 2009. Mostly Harmless Econometrics: An Empiricist's Companion. Princeton, N.J. Princeton University Press.
- Gill, Jeff. 2006. Essential Mathematics for Political and Social Research. Cambridge Press
- Angrist, Joshua D. and Jörn-Steffen Pischke. (2010). "The credibility revolution in empirical economics: How better research design is taking the con out of econometrics", Journal of Economic Perspectives, 24(2), 3-30.

- Dafoe, Allan. (2014). "Science Deserves Better: The Imperative to Share Complete Replication Files." PS: Political Science & Politics. 47(1), 60-66.
- Gujarati, Damodar N., and Dawn C. Porter. 2009. Basic econometrics. 5th ed. Boston: McGraw-Hill Irwin.
- Wooldridge, Jeffrey M. 2009. Introductory Econometrics: A Modern Approach. Cincinnati, OH: South-Western College.

Online resources:

- Github Training
- Software Carpentry
- Open Science Training Initiative
- Swirl
- Data Science Certificate
- Reproducible Research
- OpenIntro Statistics
- Implementing Reproducible Research
- The Workflow of Data Analysis Using Stata
- Manual of Best Practices
- <http://emiguel.econ.berkeley.edu/teaching/12>
- https://www.youtube.com/playlist?list=PL-XXv-cvA_iBN9JZND3CF91aouSHH9ksB
- **BITSS**
- **PROJECT TIER HAVERFORD COLLEGE**

Course evaluation:

There will be weekly assignments, a midterm exam and a final replication project They will count toward the grade as follows.

Assignments	25%
Midterm	25%
Replication project	50%.

Exams: The midterm exam will be on Wenesday, May 25. The final replication project is due on Wenesday, July 6.