PSC 405
Spring 2019
3:25-4:40 T/TH
Harkness 329

Linear Models

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PREREQUISITES

The prerequisites for this course include a mathematical statistics course at the level of PSC 404 and mathematical modeling at the level of PSC 407.

COURSE REQUIREMENTS

The requirements consist of problem sets, three papers, and a final. The problem sets will be divided between analytic and empirical exercises, and all empirical exercises will be performed in R. Students are also responsible for the additional readings. The course grade is calculated as follows: problem sets 20%, three papers 60% (20% each), final 20%.

COURSE WEBPAGE

https://www.kevinclarke.org/psc-405.html

TEXTS

The required texts for this course are:

  http://www.ssc.wisc.edu/~bhansen/econometrics/

  http://cran.r-project.org/doc/contrib/Faraway-PRA.pdf
  The accompanying source code and data, are free on the web here:
  http://cran.r-project.org/web/packages/faraway/index.html

For when you need a simpler overview or something more in-depth, the following texts may be helpful:


**COURSE SCHEDULE**

**Topic 1:** Linear Model Basics  
**Topic 2:** Specification and misspecification  
**Topic 3:** Instrumental variables  
**Topic 4:** Nonlinear estimators  
**Topic 5:** Generalized method of moments  
**Topic 6:** Bayesian methods  
**Topic 7:** Panel models  
**Topic 8:** Semiparametric methods

**Older readings with which you should be familiar**


• Belsley, Kuh, and Welsch. 1980. Regression Diagnostics, Ch. 2.


