## PSC 506 Advanced Topics in Methods

Spring 2015

Thurs, 2-4:40

## Prof. Curtis S. Signorino

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**PURPOSE:** This course covers topics that one might encounter in advanced political methodology research, but which are not yet standard fare in methods courses: e.g., Bayesian methods, bootstrapping, nonparametric regression, semiparametric methods, neural nets, etc. As a research workshop, this course will also allow students to pursue areas of individual interest in more depth. The course content, therefore, depends not only on what I want to cover, but also on what students want to cover. Finally, since students taking 506 are assumed to be interested in political methodology as a major field, they will be required (1) to solve "unsolved" problems during the semester and (2) to write a research paper that makes a contribution to the methods literature.

**PREREQUISITES:** Students must have taken PSC 404, 405, and 505. Students who would like to waive these courses based on courses previously taken must have those courses approved by me.

## **COURSE REQUIREMENTS:**

- Participation and Weekly Assignments (40%). Each week, students will be responsible for (1) having done all the required readings, (2) presenting one of those readings, and (3) participating in our discussions. The student presentation should be in the form of LaTeX'd notes, a Beamer presentation, or a Powerpoint presentation. The presentation should include (a) a summary of the article's main points/contributions, (b) a detailed walk through the main model and/or technique, (c) a summary of the results, and (d) a short critique of the paper. Applied or theoretical problems will also be assigned from time to time based on the required readings. Students will be expected to have completed the assignment and should be prepared to present their results in class.
- Final Paper (60%). 45 0 0 Tm /TT2 1 Tf ( ) Tj 20.24 0 0 0.24

a subfield, you should purchase as many of the below texts as possible. Having said that, most will be available in the star lab. I will often assign articles each week. Students will use the R programming language for much of this course.

Schafer, Joseph L. and John W. Graham. 2002. "

- Bayesianpara
- Factor analysis
- Bridging
- Bonica -- expenditures

## 7. Bootstrap II

A.C. Davison and D.V. Hinkley. Bradle

Cambridge.