Methods for Political Analysis II

Course Description:

This is an intermediate course in quantitative methods. The course is a continuation of Methods for Political Analysis I and assumes that students are familiar with the topics covered in that course. There are four main sections in this course. The first section examines extensions of the ordinary least squares model, and addresses issues such as functional form, interaction models, and violations of the Gauss-Markov assumptions. The second section covers models appropriate for limited dependent variables (such as logit, probit, multinomial & ordered logit). In section III, we learn how to analyze time-series data. The final section covers panel data methods.

Course Information:

Instructor Contact Information:
Email: steinbe2@uoregon.edu
Office: PLC 923
Office Hours: Tuesdays & Thursdays, 1:30 to 3:00 PM

Textbook & Software:
Students must purchase one book, Introductory Econometrics by Jeffrey Wooldridge, which is available at the University bookstore. All other required readings can be found online or will be made available on the course Blackboard site.

Purchasing STATA statistical analysis software is highly recommended. There will be several classes where we will use this software during class, and following along on your own laptop is strongly advised. Assignments also require the use of STATA or similar software. Students can purchase this software at reasonable prices through STATA’s GradPlan.

Grading & Assignments:

1. Assignments. Each student is required to complete seven regular assignments during the quarter. Assignments are due at the start of class on Jan. 13, Jan. 20, Jan. 27, Feb. 5, Feb. 24, Mar. 3, and Mar. 12. Those assignments will be handed out one week prior to their due dates. An eight assignment, consisting of a proposal for the final class paper, is due at the beginning of class on Feb. 17. The eight assignments are worth a total of 25% of the course grade.
2. **Midterm & Final Exams.** Students will take a midterm exam on Feb. 12 and a final exam during finals week. Each exam counts for 25% of the final grade.

3. **Final Paper.** All students must write a final class paper. Papers involve carrying out an original empirical project or replicating a previous quantitative study. These papers are due on the final day of class, and are worth 25% of the final grade. Students must hand in paper proposals.

**Policy on Late Assignments & Extensions:**
Late papers and assignments will be penalized 10% per day (24-hour period). Extensions will only be granted if students provide official documentation (e.g. doctor’s note) that explains the necessity of an extension.

**Academic Honesty & Plagiarism:**
By enrolling in this course, you agree to abide by the University’s Student Conduct Code. Plagiarism and cheating will not be tolerated. Any student that violates these policies will receive an F grade in the course and will be reported to the University authorities. Please ask the instructor if you have any questions about what constitutes plagiarism or cheating.

**Students with Disabilities:**
The University of Oregon is working to create inclusive learning environments. If there are aspects of the instruction or design of this course that result in disability-related barriers to your participation, please notify the instructor as soon as possible. You may also wish to contact the Accessible Education Center in 164 Oregon Hall, by telephone at 346-1155 or by email at uoaec@uoregon.edu.

**Course Schedule:**

**Section I: Extensions of the OLS Model**

**Jan. 6: Review of the Multivariate OLS Model**

Wooldridge, Chapters 3 & 4 (Pages 68-104, 118-140)

Bring computers and STATA software to class.
Jan. 8: Political Science Applications of Multiple Regression Analysis


Jan. 13: Testing Hypotheses About Multiple Parameters

Wooldridge, Chapter 4 (Pages 140-156)

Jan. 15: Functional Form & Qualitative Independent Variables

Wooldridge, Chapters 6 & 7 (Pages 191-198, 227-240)

Jan. 20: Interaction Models

Wooldridge, Chapters 6 & 7 (Pages 198-200, 240-248).


Jan. 22: Practice/STATA

No readings.

Jan. 27: Heteroskedasticity

Wooldridge, Chapter 8 (Pages 268-294)

Section II: Limited Dependent Variables

Jan. 29: Binary Dependent Variables: An Introduction to Linear Probability, Logit, and Probit Models

Feb. 3: Predicted Values, Marginal Effects, and Goodness-of-Fit in Binary Logit/Probit Models


Feb. 5: Ordinal and Nominal Dependent Variables


Feb. 10: Practice/STATA

No readings.

Feb. 12: Midterm Exam

No readings.

Section III: Time-Series Analysis

Feb. 17: Introduction to Time-Series Analysis

Wooldridge, Chapter 10.

Feb. 19: Unit Roots & Highly Persistent Time-Series

Wooldridge, Chapter 11

Feb. 24: Serial Correlation

Wooldridge, Chapter 12

Feb. 26: Practice/STATA

No readings
Section IV: Panel Data

Mar. 3: Introduction to Panel Data

Wooldridge, Chapter 13.

Mar. 5: Fixed Effects and Random Effects Models

Wooldridge, Chapter 14.

Mar. 10: Practice/STATA

No Readings.

Mar. 12: Review for Exam


Mar. 16-20: Final Exam