Seung-Whan Choi 1136 BSB

1136 BSB Web: http://www.uic.edu/~whanchoi/ Phone: 312-413-3280 Office Hours: M, 1:30–3:30 pm or by appointment

Email: whanchoi@uic.edu

PolS 501 Data Analysis II Spring 2009 Room 1171 or 4133, BSB Thurs, 03:30 - 05:59 pm

#### **COURSE OVERVIEW**

This course offers graduate students their second introduction to data analysis. It provides both an understanding of the main ideas of advanced statistics and some crucial research skills for empirical analysis. The tools acquired in this class are the building blocks for any future interactions you will have with statistics. This course is also designed to give you an opportunity to develop, design, and write a research paper.

### INFORMATION ON TEACHING ASSISTANT

Matthew A. Powers

Office Hours: Thurs, 01:30 - 03:30 pm

Office Location: R1177, BSB

Phone: 312-413-3434

Matt will teach the class of February 5: Introduction to the Nature and Sources of Data, Stata, and Stat/Transfer; check your class attendance; grade eleven critical reviews, five in-class replication projects, and an extra-credit assignment; and answer any statistical questions you may have. (I will evaluate your class participation, research paper proposals, and final research papers.)

#### **COURSE MATERIALS**

There are three required textbooks as follows:

- 1) Greene, William H., 2008, 6<sup>th</sup> ed., *Econometric Analysis*, Upper Saddle River, NJ: Pearson Prentice Hall.
- 2) Long, J. Scott and Jeremy Freese, 2006, *Regression Models for Categorical Dependent Variables Using Stata*, College Station, TX: StataCorp LP.
- 3) Hilbe, Joseph M., 2007, *Negative Binomial Regression*, Cambridge: Cambridge University Press.

Copies of other course materials will be distributed in a CD format.

### **GRADING POLICY**

Class Attendance (10 points): Regular attendance is required of all students. Attendance is one

- of the most important measures of your interest and desire to do well academically. Your attendance helps me facilitate better discussions, while providing your fellow students with your ideas and experiences. Without appropriate documentation, each absence will cost you 2 points. If you fail to attend more than three times, your course grade will be lowered by one letter grade. If you fail to attend more than FIVE times, your course grade will be an F. There will be no exceptions. If you come late twice (i.e., after Matt checks the class attendance), it will be counted as one absence.
- Class Participation (15 points): You are expected to actively participate in class discussion. Participation includes thoughtful comments, sophisticated questions about readings, clear evidence of active listening to your fellow students, and other valuable contributions to classroom discussion.
- Ten Critical Reviews (20 points): The purpose of the reviews is to help you to start to ponder your research paper. They must be one page long per reading, typed, single-spaced, in a legible font (10 to 12 point), with 1 inch margins on standard letter-size paper. Each review should be submitted at the beginning of each class. Each review is worth 2 points.
- Four In-Class Replication Descriptions, Do and Log-Files (12 points): The purpose of the replications is to help you become familiarized with various Stata programs. It is necessary for you to report how you replicated each article (whose title starts with the symbols, \*). It must be a half page long per article, typed, single-spaced, in a legible font (10 to 12 point), with 1 inch margins on standard letter-size paper. Each replication should be submitted at the end of each class. Each replication is worth 3 points.
- A Replication Research Paper Outline (24 points): The purpose of the outline is to help you choose your replication paper topic as early as possible. Your outline should be four to five pages long, typed, double-spaced, in a legible font (10 to 12 point), with 1 inch margins on standard letter-size paper. The due date is *March 19*.
- A Replication Research Paper (30 points): The purpose of the research paper is to provide you with an opportunity to demonstrate your research potential. Your paper should include an introduction, literature review, research design, empirical findings, and conclusion. It should be about 17 to 20 pages long, typed, double-spaced, in a legible font (10 to 12 point), with 1 inch margins on standard letter-size paper. The due date is *May 4*.
- An Extra-Credit Assignment (3 points): Let us sit back and watch, Thirteen Days, a film set during the two-week Cuban missile crisis in October of 1962, which centers on how President John F. Kennedy, Attorney General Robert Kennedy, and others handled this explosive national crisis. Your movie review should be about one page long, typed, double-spaced, in a legible font (10 to 12 point), with 1 inch margins on standard letter-size paper. The due date is *April 9*.

The grading scale is as follows: A (90-114); B (80-89); C (70-79); F (< 70)

### OTHER COURSE POLICIES

**Late work:** I am willing to help solve almost any special problem or concern you might have with this course. However, this is only possible if you talk to me about it *in advance* of assignments' due dates. Extensions for assigned work will be granted only for documented medical or family emergencies. In sum, if you anticipate difficulty submitting assigned work by the specified due date because of illness or other emergency, extensions are possible only when you:

- 1.) contact me in advance by email only
- 2.) provide me with appropriate documentation

Extremely important: For the record, you must keep our email exchanges for extensions granted in your email account (i.e., both your request email to me and my grant email to you). If you fail to present both emails, your claim will not be supported. This means that for your own protection, you can delete our email exchanges from your email account 60 days after you are officially able to check your final course grade online. This means that, for your own protection, you can only delete our email exchanges from your email account 60 days after you are officially able to check your final course grade online.

Computer-related problems: Ultimately, you are responsible for backing up your own work and caring properly for your own computing equipment. I will grant extensions for assignments due to computer-related problems, but only in the rarest of circumstances. First, I will not entertain any requests for extensions due to computer-related problems made to me within 12 hours of the paper's due date. If you expect computer difficulties to make it impossible for you to submit a paper by the due date (and that due date is not within 12 hours away) contact me and we will discuss alternative arrangements for you.

**Accommodations for disabilities:** If you need accommodations because of a disability, if you have emergency medical information to share with me, or if you need special arrangements in case the building must be evacuated, please inform me immediately. Please see me privately after class, or at my office.

Students with disabilities requiring academic accommodations in this course are encouraged to contact a coordinator at the Office of Disabilities Services, 1200 W. Harrison St. Room 1190 SSB (MC 321). And please, make an appointment to meet and discuss your needs with me at least one day prior to the due dates. This is necessary in order to ensure sufficient time to make the necessary arrangements.

**Academic dishonesty:** The University expects students to fulfill their academic obligations through honest and independent effort. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. Academic dishonesty is considered a serious offense subject to strong disciplinary actions, including being dropped from the course with a grade of "F."

Classroom etiquette: You are expected to observe all rules of proper classroom conduct. In order to insure an appropriate environment conducive to learning by all: (1) please keep in mind that computers are only for statistics during class time; (2) please refrain from talking, eating or other disruptive activity during class; even one or two conversations quickly create distractions for other students; (3) no cell phone calls, incoming or outgoing, are allowed in this class; please turn off your cell phone or set to vibrate; and (4) please do not come to class late. Also, please do not leave class early; if you must do so, tell me beforehand and arrange to sit near the door so your exit will be less disruptive.

#### **COURSE SCHEDULE**

### **January 15: Introduction**

# January 22: Empirical Studies using Ordinary Least Squares (OLS), Logit, and Negative Binomial Regression Models (Three Critical Reviews Due)

OLS regression model:

Li, Quan and Rafael Reuveny, 2003, "Economic Globalization and Democracy: An Empirical Analysis," *British Journal of Political Science* 33: 29–54.

Logit regression model:

Boehmer, Charles R., 2008, "A Reassessment of Democratic Pacifism at the Monadic Level of Analysis," *Conflict Management and Peace Science* 25: 81–94.

Negative binomial regression model:

Li, Quan, 2005, "Does Democracy Promote or Reduce Transnational Terrorist Incidents?" *Journal of Conflict Resolution* 49: 278-297.

## January 29: How to write Your Replication Research Papers: Examples (Four Critical Reviews Due)

Oneal, John R. and Bruce Russett, 1999, "Assessing the Liberal Peace with Alternative Specifications: Trade Still Reduces Conflict," *Journal of Peace Research* 36: 423–442.

Gartzke, Erik, 2007, "The Capitalist Peace," *American Journal of Political Science* 51: 166–191.

Pape, Robert A., 2003, "The Strategic Logic of Suicide Terrorism," *American Political Science Review* 97: 343-361.

Wade, Sara Jackson and Dan Reiter, 2007, "Does Democracy Matter? Regime Type and Suicide Terrorism," *Journal of Conflict Resolution* 51: 329-348.

### February 5: Introduction to the Nature and Sources of Data, Stata, and Stat/Transfer

Gujarati, Damodar N., 2003, 1.7 The Nature and Sources of Data for Economic Analysis, 25-31. Time series data, cross-section data, and cross-sectional, time-series data StataCorp LP, Getting Started with Stata for Windows Stat/Transfer

Some useful data sources are as follows:

http://www.qog.pol.gu.se/

http://globalization.kof.ethz.ch/

http://www.start.umd.edu/data/gtd/

http://www.eugenesoftware.org/

and also

Wejnert, Barbara, 2007, Nations, Development, and Democracy, 1800-2005 [Computer file], Ann Arbor, MI: Inter-university Consortium for Political and Social Research (ICPSR #20440 Version1).

# February 12: OLS Regression Diagnostics (Three Critical Reviews Due and the First and Second In-Class Replication Assignments Due)

- Bollen, Kenneth A. and Robert W. Jackman, 1985, "Regression Diagnostics: An Expository Treatment of Outliers and Influential Cases," *Sociological Methods and Research* 13: 510-542.
- \* Li, Quan, and Adam Resnick, 2003, "Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Inflows to Developing Countries," *International Organization* 57: 175-211.
- \* Jensen, Nathan M., 2003, "Democratic Governance and Multinational Corporations: Political Regimes and Inflows of Foreign Direct Investment," *International Organization* 57: 587-616.
- Greene, William H., 2008, 6<sup>th</sup> ed., *Econometric Analysis*, Upper Saddle River, NJ: Pearson Prentice Hall, Chapters 2 5, pp. 8-105. (These chapters are not for the critical reviews.)

# February 19: Logistic and Probit Regression Models (The Third In-Class Replication Assignment Due)

- Long, J. Scott and Jeremy Freese, 2006, Regression Models for Categorical Dependent Variables Using Stata, College Station, TX: StataCorp LP.
- \* Boehmer, Charles R., 2008, "A Reassessment of Democratic Pacifism at the Monadic Level of Analysis," *Conflict Management and Peace Science* 25: 81–94.
- Greene, William H., 2008, 6<sup>th</sup> ed., *Econometric Analysis*, Upper Saddle River, NJ: Pearson Prentice Hall, Chapter 23, pp. 770-869.

## February 26: Poisson and Negative Binomial Regression Models (The Fourth In-Class Replication Assignment Due)

- Hilbe, Joseph M., 2007, *Negative Binomial Regression*, Cambridge: Cambridge University Press.
- \* Li, Quan, 2005, "Does Democracy Promote or Reduce Transnational Terrorist Incidents?" Journal of Conflict Resolution 49: 278-297.
- Greene, William H., 2008, 6<sup>th</sup> ed., *Econometric Analysis*, Upper Saddle River, NJ: Pearson Prentice Hall, Chapter 25, pp. 906-944.
- March 5: Research Break. No Class
- March 12: Research Break. No Class
- March 19: Peer Review of Research Paper Proposals (Research Paper Proposal Due)
- March 26: Spring Break. University Closed
- **April 2: Movie Review: Thirteen Days**
- **April 9: Research Paper Proposal Presentations (Movie Review Due)**

April 16: Research Break. No Class

April 23: Research Break. No Class

**April 30: Research Paper Presentations** 

May 4: Research Paper Due by 1:00 pm