

# GOV 350K • Statistical Analysis in Political Science

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Unique# 38548  
Fall 2010  
Meets MWF 1pm-1:50pm GAR 0.128

Instructor: Scott Moser, Ph.D.  
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scott.moser@austin.utexas.edu  
Office hours: Monday and Wednesday 3-4:30pm, and by appointment.

Website: I plan to use blackboard for communicating information and materials to students (<http://courses.utexas.edu>).<sup>i</sup>

Text(s):

The Fundamentals of Political Science Research by Paul Kellstedt and Guy Whitten (required main text) and  
Statistics Without Tears by Derek Rowntree (optional and supplemental), both available at the co-op.

Computer software: SPSS (available in Mezes Labs 2.104 and 2.120)

**Syllabi are important. This document is meant to serve as road map of the course, and to give students a clear idea of the expectations and policies they will be held to. Please read it carefully as it contains information vital to successful completion of the class.**

## Course Overview and Goals

This course introduces basic concepts and methods of statistical inference, with a strong focus on political science. This course lays the groundwork for answering “What can we learn about political systems and political processes from the world?”

The objective of this course is to help students acquire the literacy for understanding social science research based on quantitative data and reasoning, as well as to prepare interested students for more advanced methods courses. By the end of the course I hope students will (1) be good consumers of data (whether data comes from newspapers, journal articles, debates or the popular press) and (2) be prepared for more advanced training, should they so desire.

The main activities of the class include lectures, readings and problem sets (which might include use of statistical software such as SPSS, see above). I encourage students to ask questions whenever they are in doubt, and to participate in class-room activities. Lastly, Blackboard should be checked regularly for materials posted, announcements, e-mails and discussions.

A note on `statistics classes:'

Students often seem intimidated, put off by or downright fearful of statistics classes. This is a loss for everyone involved in the teaching process. This course is meant to be a *very gentle* introduction to quantitative reasoning and analysis. Throughout the course, we will be motivated by one question: "what can we (and how do we) learn about the world from observations (data)?" Statistics, the use of (and more often, the misuse of) are ubiquitous in current events, the media and government. This course will help students be mindful consumers of statistics and arguments backed up by numbers. A final note: Don't let words like 'multicolinearity' be intimidating. It is just a word (and as we'll see in week 13, a big word for a simple idea).

## Assessment

Students' mastery of the material will be assessed via three (3) homework, two (2) in-class examinations and a final exam. Final marks will make use of the ``plus minus'' grading scheme and will be calculated as: Final exam = 38%; midterm exams = 35%; problem sets = 27%.

There will be one optional 'make up' problem set the last week of class, in the event students missed one problem set due date.

Attendance does not directly factor into grading (with the exception of exam days). While I will endeavor to make time in the class-room worthwhile (even `fun'), I believe that the ultimate responsibility for learning lies with the student. If you feel your time is better served in other activities, you are of course free to do so.

Barring legitimate, sanctioned absence, I will not give make-up exams nor extend due dates. Unexcused missed assignments and exams will be recorded as a zero. However, university-sanctioned reasons for absence can be accommodated (see 'additional notices'), but I require notification as soon as possible in the semester (and appropriate documentation as it is available).

## Schedule

### INTRODUCTION AND THEORY

Week	Topic / Activities
1	Course Description; Introduction
2	Political Science as science ; the role of theory (Ch 1)
3	Causal relationships (Ch 3)

### DATA AND DESCRIPTION

4	Research Design (Ch 4) + <b>Problem Set #1 DUE (8th day of class)</b>
5	Measurement (Ch 5)
6	Descriptive statistics (Ch. 6)
7	<b>EXAM #1</b> - Data and Description (covering chps. 1, 3-6) (17 <sup>th</sup> class meeting, Friday October 1 )



## INFERENCE

8	Intro to Statistical Inference (Ch 7)
9	Relationships between two variables (Ch. 8 and 9)
10	Cont. + <b>Problem Set #2 DUE</b>
11	Multiple Regression (ch.10)
12	<b>EXAM #2</b> – Inference I (covering chps. 7-10) (32 <sup>nd</sup> class meeting, Friday November 5)
13	Regression II: dummy vars, outliers, multicollinearity (Ch 11, sections 1,2,3,5,6,8)
14	Regression II cont.
15	Regression III: applications (Ch 12) + <b>Problem Set #3 DUE 40th class meeting</b>
16	Regression III: applications (Ch 12)

Final: Tuesday, December 14, 9:00-12:00 noon

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## Additional Notices

### **Documented Disability Statement:**

Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities at 471-6259 (voice) or 232-2937 (video phone) or <http://www.utexas.edu/diversity/ddce/ssd>

### **University of Texas Honor Code:**

The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community.

• See the following websites for more information:

<http://www.lib.utexas.edu/services/instruction/faculty/plagiarism/preventing.html>

<http://www.lib.utexas.edu/services/instruction/learningmodules/plagiarism>

### **Religious Holy Days:**

By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of observance of a religious holy day. If you must miss a class, an examination, a work assignment, or a project in order to observe a religious holy day, I will give you an opportunity to complete the missed work within a reasonable time after the absence.

Exceptions can be made in extreme circumstance at the discretion of the instructor, subject to College of Liberal Arts and University regulations.

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<sup>1</sup> If you are not registered via the registrar's office, or if you are auditing, see me to be given access to the course website.