

# **POL 201**

## **INTRODUCTION TO STATISTICAL METHODS IN POLITICAL SCIENCE**

### **Syllabus**

Fall 2011

Class Location: SBS N436

Class Time: TuTh 6:50 PM – 8:10PM

Instructor: Roland Kappe  
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Office: SBS S-723  
Office Hours: *Tuesdays 3-5pm or by appointment*

#### **Course Overview:**

This class provides an introduction to elementary statistical methods in empirical political science. We consider the application of descriptive and inferential statistics to testing hypotheses on various political issues.  
(May not be taken for credit after AMS 102, ECO 320, PSY 201, or SOC 202.)

#### **Course Goals:**

The main purpose of this course is to teach you the basic concepts and techniques for empirical research in political science using statistical analysis. Statistical tools are extremely valuable for anyone working in business, politics, public policy, journalism, international relations. Note that learning statistics is not necessarily a goal in and of itself, rather it will provide you with a powerful toolset that will guide your decision-making and lets you understand and evaluate the consequences of political decisions. Being able to quantify facts and make statistical arguments will make you a better (and almost certainly more marketable) analyst of political phenomena, regardless where your interests lie or where your career leads you. To put it another way: someone with good statistical skills is unlikely to ever be unemployed: <http://www.nytimes.com/2009/08/06/technology/06stats.html>

During this course you will be encountering some basic math. You will learn some formulae and apply them to real data. This is nothing to be afraid of. We will start very (very) easy, but the material is highly cumulative. Don't miss classes or fall behind in assigned readings or homework assignments. It will be difficult to catch up. I understand that some people feel a little uncomfortable with math. My goal is to make this as pain free for you as possible and as long as you are willing to put in the necessary work, the material is not too difficult for anyone. All of you can do this!

#### **Course Requirements:**

Students are expected to attend all lectures and are responsible for the material if they miss class. Assigned readings have to be completed before the class they are posted for below.

There will be three exams, a first short exam, a cumulative midterm and a cumulative final exam, additionally I will offer homework assignments. The course grade consists of the following:

First Exam	20%
Midterm Exam	30%
Final Exam	40%
Participation & Homework:	10 %

All work will be graded on a 0-100 scale:

A	100-94	B+	89-87	C+	79-77	D+	69-67	F	60-0
A-	93-90	B	86-84	C	76-74	D	66-64		
	B-	83-80	C-	73-70	D-	63-60			

**Make-up exams** will only be offered under extraordinary circumstances, e.g. a medical emergency. Proper documentation is required. Note that simply visiting a doctor is not sufficient. There must be written documentation stating that the student was physically incapable of taking the exam. All make-up exams must be completed within one week (7 days) of the original exam date. Failure to schedule a make-up exam within the allotted time will result in a grade of zero for the exam.

#### **Required Readings:**

*Roberta Garner, “The Joy of Stats”, 2nd ed., Toronto: University of Toronto Press, 2010.*

#### **Americans with Disabilities Act:**

If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room 128, (631) 632-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

#### **Academic Integrity:**

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at <http://www.stonybrook.edu/uaa/academicjudiciary/>

#### **Critical Incident Management:**

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.

## Course Schedule:

*Changes to this schedule may become necessary depending on our progress through the material.*

30-Aug	Introduction	
1-Sep	<i>NO CLASS: Instructor at APSA</i>	
6-Sep	Basic Concepts, Terminology, Measurement	Read Chapter 1
8-Sep	Frequency Distributions	Read Chapter 2
13-Sep	More on Frequency Distributions and Measures of Central Tendency	
15-Sep	Quantifying Variability: Variance and Standard Deviation	
20-Sep	<b>FIRST EXAM</b>	
22-Sep	Fun and Games: Probability Theory	Read Chapter 3
27-Sep	Probability Theory	
29-Sep	<i>NO CLASS: Rosh Hashanah</i>	
4 & 6 Oct	Samples and Population	
11 & 13 Oct	Quantifying Uncertainty	
18 & 20 Oct	Hypothesis Testing	
25-Oct	<b>MIDTERM EXAM</b>	
27-Oct	Relationships among Variables: Categorical Data	
1 & 3 Nov	Relationships among Variables: Continuous Data	Read Chapter 4
8 & 10 Nov	Correlation	
15 & 17 Nov	Regression Week I	
22 Nov	Regression Week II	
24-Nov	<i>NO CLASS: Thanksgiving</i>	
29-Nov	Regression Week III	
1 & 6 Dec		
8-Dec	Review Session	
<b>20-Dec</b>	<b>FINAL EXAM (5:15 – 7:45 PM)</b>	

*The final examination will be given in the room where the regular class is held. It is the student's responsibility to plan a class schedule that avoids exam conflicts and too many exams in the same day.*