SIS 600 Quantitative Analysis in International Affairs
Sections 001 and 006
Fall 2009

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Class Meetings
Sec 001: Mondays, 8:10-10:40, WARD 105
Sec 006: Thursdays, 8:10-10:40, WARD 106
Office: SIS 306/_____
Office Hours: _____,
and by appointment

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and by appointment
204 Hurst, SSRL

This course is designed to prepare students to conduct and critique original empirical research in international relations using quantitative analytical techniques. Our emphasis, then, is on the proper use of these tools in international relations research, and not on the 'statistics' themselves. We will spend about 2/3 of the course introducing a range of basic but widely used quantitative tools and techniques and working through the parts of your term paper. We'll then spend the last several weeks exploring some more advanced techniques, and identifying common problems (and solutions!) of data and research design. The course culminates with poster presentations of student research projects. Ultimately, you should leave this course with the ability to collect and analyze data using quantitative techniques, and to read and critique quantitative scholarship.

Textbooks and Resources
We have one required textbook: Joseph Healey's *Essentials of Statistics: A Tool for Social Research*, 2nd edition, ISBN 978-0-495-60143-2. You will also need to acquire a personal response system "clicker" by the third class meeting; more information will be available in class. Problem Set 0 asked you to acquire a second stats textbook for reference from a library or elsewhere. Other readings in the schedule below will be available electronically via AU Electronic Reserves (ER) or our Blackboard site (BB). In addition, I have asked the AU Bookstore to stock the Study Guide for Healey as a recommended title.

Objectives
At the conclusion of this course, you should be able to:
1. Identify levels of measurement and levels of analysis, and make appropriate methodological choices that reflect these,
2. Use SPSS and/or other software to perform basic statistical calculations and tests,
3. Design and carry out a quantitative research project, from conceiving a research question though situating the question in the literature, gathering and appropriately managing quantitative data, conducting analysis, and presenting your research in a professional format, and
4. Read and critique quantitative professional scholarship from across the discipline.

Assessment
Your grade in this course comes from two primary components: problem sets (a.k.a. "homework") and the research project.

Problem sets: 5 @ 10% each	50%	250 points
Research project		
Proposal	5%	25 points
Draft dataset	10%	50 points
Peer review	10%	50 points
Final paper	15%	75 points
Final poster	10%	50 points

A maximum of 500 points is possible. Final grades are determined by the following scale:

A+	485-500	B+	435-449.9	C+	385-399.9	D+	335-349.9	F	≤299
A	465-484.9	B	415-434.9	C	365-384.9	D	315-334.9		
A-	450-464.9	B-	400-414.9	C-	350-364.9	D-	300-314.9		

As with all graduate coursework, you must obtain a grade of C or better to count the course towards your degree. Grades of C- or lower will require you to retake the course. Please, if you have math anxiety or are math averse or experience any other type of difficulty with this material, ask Camilo or I for help. I very much prefer answering questions to deducting points! You have my home, office, and cell phone numbers; don't hesitate to use them if you need them.

Policies
Attendance and Participation. I have no formal policy on attendance and participation. I do not require them because I have found that irregularity in either already has a more profound effect on your grade than any externally imposed penalty could. If you know in advance that you will miss a class, you may attend the other section to make it up; notifying the instructor of an impending absence is always polite. Regardless, you are responsible for all material covered in your absence.

Communication. Email is often the best way to reach me. During the workweek, I usually try to respond within 24 hours. On Mondays and Thursdays, you can try calling me in my office; on other days, you may contact me at home if you feel it necessary between the hours of 8 AM and 10 PM.

Due Dates and Extensions. Homework is due at the start of the session indicated; *I cannot accept late assignments* as we'll discuss the assignment immediately, and that would be unfair to students who did the assignment without benefit of the discussion. On assignments related to the major paper, I will allow anyone a single, automatic 24-hour extension *if and only if it is requested in writing no later than 24 hours before the due date*. Longer extensions will only be granted in highly extenuating circumstances.

Collaboration. Everyone learns differently. Many students will find that they benefit from talking and working through the problem sets in small groups. I encourage you to use our Blackboard discussion forum to assemble work groups and to collaborate on your homework. However, *every student must turn in his or her own, independently produced assignment.*

Computer Use. The objectives for this course specify that most of our work needs to use SPSS. This software is available on virtually all computers in AU's labs, including the Anderson Computing Complex (lower level, north), and all machines in the Social Science Research Lab (Hurst 204). The SSRL also has a

range of other statistical software, including Stata. You may use Microsoft Excel (or similar spreadsheet software) for its calculating functions, but please do not use the pre-programmed functions. Several very good (free!) online stats calculators exist, as well; we'll explore these in class.

Special Learning Needs. If you have special learning needs, including those which may allow you testing or other accommodations, please consult with the Office of Disability Support Services in Mary Graydon Center 206. This office will assist you in obtaining the necessary documentation. I am also happy to consult with anyone on less formal accommodations and learning strategies as needed.

Academic Integrity. Standards of academic conduct are set forth in the University's Academic Integrity Code. By registering, you have acknowledged your awareness of the Academic Integrity Code, and you are obliged to become familiar with your rights and responsibilities as defined by the Code. Violations of the Academic Integrity Code will not be treated lightly, and disciplinary actions will be taken should such violations occur. Please see me if you have any questions about the academic violations described in the Code in general or as they relate to particular requirements for this course.

Emergency Preparedness. In the event of a declared pandemic (influenza or other communicable disease), American University will implement a plan for meeting the needs of all members of the university community. Should the university be required to close for a period of time, we are committed to ensuring that all aspects of our educational programs will be delivered to our students. These may include altering and extending the duration of the traditional term schedule to complete essential instruction in the traditional format and/or use of distance instructional methods. Specific strategies will vary from class to class, depending on the format of the course and the timing of the emergency. Faculty will communicate class-specific information to students via AU e-mail and Blackboard, while students must inform their faculty immediately of any absence due to illness. Students are responsible for checking their AU e-mail regularly and keeping themselves informed of emergencies. In the event of a declared pandemic or other emergency, students should refer to the AU Web site ([www. prepared. american.edu](http://www.prepared.american.edu)) and the AU information line at (202) 885-1100 for general university-wide information, as well as contact their faculty and/or respective dean's office for course and school/ college-specific information.

Tentative Schedule of Meeting Topics

Mon	Thurs	Class Topic
24-Aug	27-Aug	Introduction, Orientation and Data Generating Processes Read: Healey Prologue, Ch 1; Abelson Ch 1 (BB) Due: Problem Set 0
31-Aug	10-Sep	Descriptive Statistics: Basics and Measures of Central Tendency Read: Healey 2, 3, 4 Out: Problem Set 1: Descriptive Statistics in Excel **NOTE:** No class on Thurs 3 Sep (Prof Powner at APSA Conference) or Mon 7 Sep (Labor Day).
14-Sep	17-Sep	Descriptive Statistics: Measures of Dispersion and Confidence Intervals *and* Project Discussion Read: Healey 5, 6 Due: Problem Set 1 Out: Project Proposal

21-Sep	24-Sep	Introduction to Inferential Statistics and Bivariate Association Read: Healey 7, 8; browse 9 Due: Project Proposal Out: Problem Set 2: Testing Differences in Means
28-Sep	1-Oct	Association Measures for Nominal and Ordinal Measures Read: Healey 12, 13 Due: Problem Set 2 Out: Problem Set 3: Nominal and Ordinal Association
5-Oct	8-Oct	Chi-Squared Tests and Correlation Read: Healey 11, 14:339-41 only Due: Problem Set 3 Out: Problem Set 4: Chi-Squared Tests and Correlation Measures [OPTIONAL Due: Draft Literature Review]
12-Oct	15-Oct	Linear Regression Read: Healey 14, 15 Due: Problem Set 4 Out: Problem Set 5: Regression
19-Oct	22-Oct	Analysis of Variance *and* Catch-Up Read: Healey 10 Due: Problem Set 5
26-Oct	29-Oct	Analysis Lab **OR** Catch-Up, Continued Due: Draft Project Dataset (electronic to BB)
2-Nov	5-Nov	Models for Limited Dependent Variables Read: Pollock 8 (BB)
9-Nov	12-Nov	Stats In Practice: Human Rights *and* International Development Reading lists distributed at a later date (3-4 articles) Due: Draft Analysis (electronic to BB)
16-Nov	19-Nov	Stats In Practice: Civil Conflict *and* Public Opinion & US Foreign Policy Reading lists distributed at a later date (3-4 articles)
23-Nov	23-Nov	Stats In Practice: International Environmental Institutions *and* International Trade Institutions Reading lists distributed at a later date (3-4 articles) Due: Paper Draft (to peer reviewer on BB) **NOTE:** Thursday, Nov 26 is Thanksgiving. Section 6 will make up the Sept 3 cancelled class on Tuesday, Nov 23.
30-Nov	3-Dec	Stats In Practice: International Communication *and* International Development Reading lists distributed at a later date (3-4 articles) Due: Peer Reviewer Response
7-Dec	10-Dec	Final Poster Session (during final exam session) Due: Final Paper and Final Paper Poster