FALL 2017
IR 211 International Relations: Approaches to Research
Last update: September 28, 2017
School of International Relations
University of Southern California
Lectures: Tues, Thu 12:30 to 1.50pm, WPH B27
Sections: Mon 10-10.50am and 1-1.50pm (VKC 154), Wed 1-1.50pm (VKC 515), Fri 12-
12.50pm (VKC 155)

Instructor: Prof. Barberá   email: pbarbera@usc.edu
Office Hours: Wed 4pm-6pm   Office: VKC 359A

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This syllabus is current as of the version date above. It is subject to change. You will be
notified in class and/or by e-mail whenever the syllabus is updated. The current version
of the syllabus will always be posted on Blackboard

Course Description and Objectives:

This class is an introduction to social science research methodology. Our main goal is to
teach you the basics of creating and consuming research in the social sciences, and
international relations in particular. The course will lead you through conceptualization
and theory construction, the derivation of testable hypotheses, and how to use data
analysis methods to evaluate these hypotheses. We will cover causal inference,
observation and measurement, ethics of social science research, and quantitative research
methods. We will also discuss the way in which academic articles in the social sciences
are written, and how they should be read.

This course includes some introductory statistics, and requires use of Excel for some
class assignments. These include descriptive statistics, contingency tables, correlation
analysis, and significance tests for relationships between variables from different
quantitative datasets.

After the course, you will be able to:

1. Develop theories of social science phenomena that are logically consistent, using
   deductive and inductive reasoning
2. Formulate hypotheses about relationships between variables that can be tested
   empirically under certain assumptions
3. Employ appropriate methodological techniques to test hypotheses with
   quantitative data
4. Estimate the magnitude of the relationship between variables using methods such
   as cross tabulations, correlation analysis, and differences in means.
5. Measure uncertainty using confidence intervals and interpret these results
   building upon basic concepts in probability theory

6. Identify potential challenges to causal inference and design empirical strategies to distinguish correlation from causation.
7. Read and manipulate quantitative data in a spreadsheet format
8. Create effective visual depictions of statistical patterns in data using visualization techniques

Reading Materials:

You will not need to purchase any textbook/s for this class. All reading materials will be available online or through Blackboard. For those of you that feel more comfortable having a textbook for more information on the topics covered in this class you can use: *Investigating the Social World, 8th Edition* by Russell K. Schutt. You will need to order it online, as it is not in the bookstore. Newer or older editions do not differ that much.

Course Requirements and Grading:

Homework: 40%
Midterm: 20%
Final: 20%
Participation: 10%
Reading quizzes: 10%

Homework:

The course will follow a "learning-by-doing" approach and will place emphasis on gaining experience in designing social science research and analyzing data through multiple short problem sets during the semester. There will be a total of 8 homework assignments, due as specified in the course outline below via Blackboard. Late assignments will be penalized with a 50% penalty if they are submitted within the same week they were due (e.g. if your grade is 80%, it will be reduced to 40%). Assignments more than one week late will not be accepted and their grade will be 0%.

Some assignments will be part of a semester-long course project. Some others will be individual submissions. In these cases, homework assignments must reflect your own work. You may discuss individual homework assignments with other students, **but if you do so, you must list the students with whom you have discussed the assignment on the top of your homework.**

You must do all computer work and write all answers yourself. DO NOT hand in homework for which any of your answers are identical to your peers, even if your peers' names are listed on your assignment. This will be considered cheating.

Students who cheat on either a homework assignment or an exam will receive an F in the course and the case will be referred to the USC Student Judicial Affairs and Community Standards.

All homework assignments must be submitted as a Word or PDF document with questions and pages numbered. For assignments where Excel is required, include the printed output in your homework submission. All assignments are due via Blackboard (not in paper), unless otherwise noted

Midterm and Final:

There will also be a midterm and a final. The midterm exam will be administered in class on Thursday October 19. The final exam will be administered during the time scheduled by the school: Tuesday December 12 from 11am to 1pm in WPH B27.

The midterm and final are closed book. The final is cumulative, and both exams will cover material from lecture, section, and the required readings/viewings/listenings. Exam study guides will be made available approximately one week before each exam.

Participation:

This course requires your active participation, particularly during the sections. Students are required to attend both lectures and sections, and to get involved in class discussions. 10% of the grade will be based on the extent to which you become an active contributor to the course. This part of the grade will be evaluated by the Teaching Assistants.

Reading quizzes:

Students are expected to complete all assigned readings *before* the class for which they are assigned, and to arrive in class and in section prepared to discuss that material.

Short reading quizzes will be administered before the beginning of most classes, and some other times at the end of the class. They will not be hard. They are designed to test whether you did the reading, not whether you grasped every nuance. Do the reading and you should get the questions right.

You do not need to purchase a clicker for this class. Reading quizzes will be available at the following website: https://pollev.com/IR211 You can visit it from your laptop or smartphone during class. Alternative ways to complete the quiz via text message will be made available as well. To make sure your answers are recorded, you will need to register using your USC email address so that we can record your participation. More details will be provided during the first week of class. Every time you complete a quiz, you will need to log in first. If you have any issue completing the quiz, please get in touch with your TA.

Blackboard:

All the readings for the course, as well as the slides and materials we will use in the lectures and section sessions, will be available on Blackboard. Whenever possible, I will post the slides before class so that students can print them out to take notes directly onto

the slides. Reviewing the slides is *not* a substitute for attending lecture, and the slides will not include all the information covered in lecture, or all the material that will be on the exams.

Grade Disputes:

You may contest the grade on an exam up to 1 week after it is returned. If you believe that there has been an error on your exam, submit a **written** description of the error you believe occurred along with the exam to your TA for re-grading. Clerical errors and outright mistakes will be corrected; decisions about the amount of partial credit to give for an answer will not be re-visited.

Statement for Students with Disabilities:

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to me as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

Statement on Academic Integrity:

USC seeks to maintain an optimal learning environment. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. *Scampus,* the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: http://www.usc.edu/dept/publications/SCAMPUS/gov/. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: http://www.usc.edu/student-affairs/SJACS/.

COURSE OUTLINE AND READINGS

Week 1. The Big Picture

Tuesday, August 22
   - Introduction to the course

Thursday, August 24

- Research design and types of research
Required viewing: Jonathan Haidt. Three Stories About Capitalism (Talk is 25 minutes long. You only need to watch the first 14:30 of the talk)
 https://www.youtube.com/watch?v=iOu_8yoqZoQ

Week 2. The Scientific Method

Tuesday, August 29
- The process of social science research
- Concepts, measures, and data
- How the scientific method can solve social science puzzles
Required Viewing: Simon Jackman's TED talk on The Democracy Data Revolution https://www.youtube.com/watch?v=INf5u29n-5Q

Thursday, August 31
** NO CLASS. MAKE-UP DATE TBA **

Section
- Course introductions
- Discussion of homework 1

Week 3. Selecting Research Questions

Tuesday, September 5
- Evaluating social research questions
- Social research strategies and goals

Thursday, September 7
- Reviewing previous research: the literature review
Required reading: Jeffrey Knopf. 2006. "Doing a Literature Review." PS: Political Science 39(1): 127-132
http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=3862 29&fileId=S1049096506060264

Section
- Course introductions
- Discussion of homework 1

Week 4. Hypotheses and Theory Construction

Tuesday, September 12
- What is a theory? Evaluating theories. Selecting a theory
- Hypotheses: deriving testable implications
Required reading: building a social science theory

http://slantchev.ucsd.edu/courses/ps12/01-scientific-method.pdf

Thursday, September 14
    - Case study: the controversy about the Democratic Peace theory
    Required reading: Rosato, S. "The Flawed Logic of Democratic Peace Theory,"
    American Political Science Review 97:1 (November 2003), pp. 585-602.
    Required reading: Branislav L Anna Alexandrova, and Erik Gartzke,
    "Probabilistic Causality, Selection Bias, and the Logic of the Democratic Peace,"
    American Political Science Review 99:3 (August 2005), pp. 459-462.

Section
    - Activity: generating testable hypotheses
    - Discussion of homework 2

Homework 1 (the scientific process): due Tuesday September 12, noon.

Week 5. Measurement, Operationalization, and Validity

Tuesday, September 19
    - From concepts to indicators
    Required viewing: "What is GDP"
    http://www.npr.org/sections/money/2011/10/26/141741360/video-what-is-gdp
    Required reading: "What does Nigeria's new GDP number actually mean?"
    http://africanarguments.org/2014/04/08/what-does-nigerias-new-gdp-number-
    actually-mean-by-morten-jerven/

Thursday, September 21
    - Levels of measurement
    - Reliability and validity
    Required Reading: Adcock and Collier. "Measurement Validity: A shared
    standard for qualitative and Quantitative Research."
    http://polisci.berkeley.edu/sites/default/files/people/u3827/APSR2001-
    Validity.pdf
    (Read pp. 529-532, stopping before the "Measurement Validity and Choices about
    Concepts" section. Then read from p. 536-544, staring with the section on
    "Alternative Perspectives on Types of Validation.)

Section
    - Feedback on homework 1
    - Discussion of group project

Homework 2 (literature review): due Tuesday September 19, noon.

Week 6. Sampling and External Validity

Tuesday, September 26

- The purpose of sampling
- Sampling methods
Required reading: "Key Research Concepts in Politics and International Relations by Harrison and Callan. Sampling" (This is a 2-page pdf posted on Blackboard).
Required reading: "Examples of Sampling Techniques:"
http://ccnmtl.columbia.edu/projects/qmss/samples_and_sampling/types_of_sampling.html

Thursday, September 28
- Estimating sampling error
- Internal and external validity
Required viewing: Introduction to sampling error
https://www.youtube.com/watch?v=uGuWrPFStdg
Required viewing: Polls explained with interactive graphics
http://rocknpoll.graphics/

Section
- Activity: presentation of research designs for group project

Homework 3 (research design of group project): due before section.

Week 7. The Logic of Causal Inference

Tuesday, October 3
- Definition of causality
- Correlation vs causation
- Experimental designs
Assigned Reading: McDermott, Rose. "Experimental Methods in Political Science." *Annual Review of Political Science*. 5(2002), 31-61 (skip pages 41-56)

Thursday, October 5
- True experiments
- Estimating treatment effects
- Limitations of the experimental design
Assigned reading: Poverty Action Lab write-up of Miguel de-worming paper
http://www.povertyactionlab.org/evaluation/primary-school-deworming-kenya

Section
- Activity: discussion of measurement validity
- Discussion of homework 4

Week 8. Natural & Quasi-Experiments

Tuesday, October 10

- Limitations of true experimental designs
- Natural experiments
<u>Required reading:</u> The Impact of Women Policy Makers on Public Goods in India
https://www.povertyactionlab.org/evaluation/impact-women-policy-makers-public-goods-india

Thursday, October 12
- Quasi-experiments: regression discontinuity designs and difference-in-differences designs
<u>Required reading</u>: Did the introduction of Uber reduce drunken-driving deaths?
https://uberblogapi.10upcdn.com/wp-content/uploads/2015/01/UberMADD-Report.pdf
<u>Required reading (skim):</u> Brasil and Kirk, "Uber and Metropolitan Traffic Fatalities in the United States", *American Journal of Epidemiology*.
https://academic.oup.com/aje/article/184/3/192/2195589/Uber-and-Metropolitan-Traffic-Fatalities-in-the

Section
- Activity: presentation of codebooks

Homework 4 (experimental design): due Tuesday October 10, noon.
Homework 5 (group project codebook): due before section

Week 9. MIDTERM. Research ethics

Tuesday, October 17
- Ethical issues in observational and experimental research
<u>Required reading</u>: "Indian Tribe Wins Fight to Limit Research of Its DNA"
http://www.nytimes.com/2010/04/22/us/22dna.html?pagewanted=all

Thursday, October 19
** MIDTERM EXAM **

Section:
- Exam review
- Discussion of homework 6

Week 10. Working with Data: Descriptive Statistics (I)

Tuesday, October 24
- Working with variables
- Univariate analysis: measures of centrality
- Visualization: histograms
- Introduction to Excel
<u>Required reading:</u> Agresti and Finlay (chapter posted on Blackboard)

Thursday, October 26
> - Univariate analysis: measures of dispersion
> - Samples and populations
> Required viewing**:** The Central Limit Theorem
> https://www.youtube.com/watch?v=jvoxEYmQHNM

Section:
> - Review of midterm solutions
> - Activity: descriptive analysis with Excel

Homework 6 (data labeling exercise for group project): due Thursday October 26, noon.

Week 11. Working with Data: Descriptive Statistics (II)

Tuesday, October 31
> - Bivariate analysis: contingency tables, correlation
> Required viewing: the correlation coefficient explained in 3 steps
> https://www.youtube.com/watch?v=ugd4k3dC_8Y
> Required viewing: play a few rounds of "guess the correlation"
> http://istics.net/Correlations/

Thursday, November 2
> - Bivariate analysis with Excel

Section:
> - Activity: data visualization with Excel
> - Discussion of homework 7

Week 12. Working with Data: Inference

Tuesday, November 7
> - Basics of probability theory
> - Quantifying uncertainty with confidence intervals
> Required viewing: the concept of confidence interval
> https://www.youtube.com/watch?v=v0FXSAdYCkQ

Thursday, November 9
> - Hypothesis tests
> - Statistical significance
> Required viewing: Is most published research wrong?
> https://www.youtube.com/watch?v=42QuXLucH3Q

Section:
> - Activity: students' presentations of descriptive analysis

Homework 7 (descriptive analysis of group project): due before section.

Week 13. Consuming Research

Tuesday, November 14
>   - Learning how to criticize research
>   - How not to lie with statistics
>   Required reading: Hughes, "Visualizing inequality: How graphical emphasis shapes public opinion", *Research & Politics*.
>   http://journals.sagepub.com/doi/full/10.1177/2053168015622073

Thursday, November 16
>   - Correlation vs causation revisited
>   - How to read a journal article (I)

Section:
>   - Activity: inferential statistics with Excel
>   - Discussion of homework 8

Week 14. Summarizing and reporting research

Tuesday, November 21
>   - How to read a journal article (II)

Thursday, November 23
**** THANKSGIVING ****

Section:
>   ** No sections this week **

Homework 8 (testing hypotheses in group project): due Tuesday November 21, noon.

Week 15. Back to the Big Picture

Tuesday, November 28
>   - Presentations of group projects

Thursday, November 30
>   - Course review
>   - Careers in social science research
>   Required reading: How Elite Students Get Elite Jobs.
>   http://marginalrevolution.com/marginalrevolution/2015/04/how-elite-students-get-elite-jobs.html

Required reading: Why a Harvard Professor Has Mixed Feelings When Top Students Take Jobs in Finance.
http://www.nytimes.com/2015/04/12/upshot/why-a-harvard-professor-has-mixed-feelings-when-students-take-jobs-in-finance.html

Section:
    - Course review

Final exam: Tuesday December 12, 11am-1pm, WPH B27