

DRAFT: SUBJECT TO CHANGE

PA 397G: Analytical Methods for Global Policy Studies

Instructor: Dr. Jaganath Sankaran

Session: Fall 2024 (section 60524)

All lectures for PA 397G will occur on Thursday from 02:00-05:00. The lectures will be held in SRH 3.124.

Please note that this syllabus is subject to change; students who miss class are responsible for learning about any changes to the syllabus.

Course Description & Learning Outcomes

Governments and bureaucracies constantly endeavor to evaluate policies and programs for efficiency. Such Estimation of efficacy is critical to foster improvements in policy outcomes.

All contemporary policy challenges demand evaluation of some kind. For instance:

- *Is the climate changing? How fast? What is the accuracy of our measurement methods? Should we be reducing carbon emissions at a faster rate?*
- *Are policies attempting to reduce teenage pregnancy successfully delivered? Do some parts of the country have higher rates of adolescent pregnancy?*
- *Is there a racial bias/gender bias/sexual bias in the selection process? For example, does the US Senate take more time to act on female nominees? How do we estimate the validity of such a complaint?*
- *If North Korea launches a nuclear-armed missile against the US homeland, what is the probability our national missile defenses will work? Given the probabilities, how can American foreign policies be designed to deter North Korea?*
- *What do past trade negotiations teach us about the efficacy and outcomes of President Biden's trade policies with various countries?*

As a public affairs student and future policymaker, you must acquire the skills to perform such an evaluation. Analytical Methods for Global Policy Studies introduces you to a subset of quantitative and qualitative methods often used in evaluating public policies and programs.

The goal of this course is to prepare you to rigorously evaluate the sorts of questions described above and make you ready for your future careers. Analytical Methods for Global Policy Studies explores the use of probability, statistics, data analysis, and qualitative case study techniques to evaluate policies and programs. While learning to understand and apply these methodological tools is an important focus, the larger goal is to make you an intelligent consumer and judge policy prescriptions based on these methods.

Through various real-world examples or published research, we discuss how to translate policy questions into defensible research designs, assemble data, analyze, and interpret and present the results. In the course, special attention is given to understanding the validity of underlying assumptions and detecting faulty reasoning. The desired outcome is for the course participants to gain a deeper appreciation for the strengths and limitations of quantitative and qualitative analysis to

understand policy issues and choices. Along the way, students become proficient in using Microsoft Excel, an excellent general-purpose tool for performing probability and statistical evaluation.

Course Details

Instructor Details:

Dr. Jaganath Sankaran

SRH 3.374

jaganath@austin.utexas.edu

The instructor will lead the class sessions. In certain weeks, the instructor will provide learning cues to guide students on ways to explore the assigned readings. The reading cues aim to help students connect and understand the various assigned materials. It is also intended to help students confidently participate in the class discussion.

The instructor will be available for consultation on Thursdays (12 noon to 2 pm). Consultations can be held on other days upon request. Students are **strongly encouraged** to consult and discuss any concerns with the instructor.

Teaching Assistant Details:

Mr. Sairam Maddala

sairam.maddala@utexas.edu

Discussion sessions on problem sets and review of concepts introduced in class will be led by the Teaching Assistant(s). Details on the day, time, and other modalities will be forthcoming. While optional, discussion sessions are an essential component of the learning process. All students are strongly encouraged to attend. The teaching assistant(s) will be available for appointments to consult on specific materials.

Course Requirements & Schedule

Recommended (not Required) Materials

David S. Moore, George P. McCabe, and Bruce A. Craig, *Introduction to the Practice of Statistics* (New York, NY: W. H. Freeman and Company). [7th, 8th, or 9th edition is acceptable].

The other readings listed below can be obtained from the UT Austin library or will be posted on the Canvas website. Additional texts may be posted as the semester progresses. The instructors' notes (which will be posted on Canvas) will serve as a helpful resource.

Required Software

Microsoft Excel is an easy-to-understand and versatile tool to use for statistical analysis. It is also widely used in the policy community. Many class lectures and assignment problem sets will depend on your ability to use Excel. For those who are uninitiated in the use of Excel, the teaching assistant will provide basic guidance. Registered University of Texas, Austin students can obtain Excel through the University. See <https://it.utexas.edu/services/software-applications>

Quantitative Problem Sets

There will be seven problem sets (PS). Posting and due dates are listed on the course schedule below. You should submit your solutions for each problem set before midnight of the indicated due date, one week after the assignment is posted online.

- **Late submissions will not be accepted unless prior permission is obtained.**
- **Students will be penalized for skipping problem sets.**

Problem Sets will entail questions that require a combination of direct mathematical/logical computations and MS Excel statistical calculations. Problem sets will have to be submitted as an MS Word document. More instructions on arranging and formatting the solutions in MS Word documents will be provided when PS1 is posted. All problem set submissions should be made electronically on Canvas.

The instructor encourages students to consult and work in small groups of no more than four to enhance collaborative learning. However, each student should be able to answer the problem sets independently. Please read the University's academic integrity policy at <http://deanofstudents.utexas.edu/conduct/academicintegrity.php>. Problem sets and their solutions will be posted online.

Exams

There will be three exams over the course duration. Details will be provided as the semester progresses. **Exam retakes and incompletes will be granted only in exceptional circumstances (e.g., illness or death in your family, etc.).**

Class Participation

The class lectures are structured to be highly participatory. Students are expected to attend all lectures. If you must miss a class, provide prior notice and a valid reason. Class participation accounts for 15% of your grade.

The instructor expects all students to respond to cues and questions during the lectures actively. Professional courtesy and sensitivity are essential in my classroom. Please be sensitive to factors that may disproportionately influence readiness to participate in a classroom. Raise your hand and wait to be called. We succeed when everyone has a chance to provide their unique insights.

Grading

Grades in the course will be calculated as follows:

Problem sets 35% (average of 5 problem sets)

Exams 50% (average of 3 exams)

Class Participation 15%

Final grading will be on a curve. Final grades are decided at the end of the semester, based on the cumulative grade as detailed above.

Please note that this syllabus is subject to change; students who miss class are responsible for learning about any changes to the syllabus.

Week	Date	Topic	Readings
1	08/29	<ul style="list-style-type: none"> Overview of course learning outcomes, weekly course organization, and course requirements. 	<ul style="list-style-type: none"> Read the syllabus. It should answer any questions about expectations, course structure, and grading. Warm-up Exercises.
2	09/05	<ul style="list-style-type: none"> Types of variables and data sets. Descriptive statistics. Probability and Bayes' Rule. <i>PS1 posted online</i> 	<ul style="list-style-type: none"> Skim Section titled "Describing Distributions with Numbers" in Chapter 1 of Moore, McCabe, and Craig, <i>Introduction to the Practice of Statistics</i> (New York: W. H. Freeman and Company), 2012. Read Chapter 4 of Moore, McCabe, and Craig.
3	09/12	<ul style="list-style-type: none"> Distributions: Normal, Poisson, and binominal <i>PS1 due</i> <i>PS2 posted online</i> 	<ul style="list-style-type: none"> The section titled "Density Curves and Normal Distributions" in Chapter 1 of Moore, McCabe, and Craig. The section titled "Sampling Distributions for Counts and Proportions" in Chapter 5 of Moore, McCabe, and Craig. Pay attention to the parts on the binomial distribution.
4	09/19	<ul style="list-style-type: none"> Sampling; central limit theorem; Confidence intervals <i>PS2 due</i> <i>PS3 posted online</i> 	<ul style="list-style-type: none"> Chapter 5 of Moore, McCabe, and Craig. "Introduction" section and section titled "Estimating with Confidence" in Chapter 6 of Moore, McCabe, and Craig.
5	09/26	<ul style="list-style-type: none"> Hypothesis testing <i>PS3 is due</i> <i>PS4 posted online</i> 	<ul style="list-style-type: none"> The section titled "Test of Significance," "Use and Abuse of Tests," and Power and Inference as a Decision" in Chapter 6 of Moore, McCabe, and Craig. Chapter 7 of Moore, McCabe, and Craig. Chapter 8 of Moore, McCabe, and Craig.
6	10/03	<ul style="list-style-type: none"> Chi-square analysis, Goodness-of-fit test, test of independence <i>PS4 is due</i> <i>PS5 posted online</i> 	<ul style="list-style-type: none"> Readings TBD

Week	Date	Topic	Readings
7	10/10	<ul style="list-style-type: none"> Large N Quantitative Data Analysis: Linear & Non-linear Regression <i>PS5 is due</i> 	<ul style="list-style-type: none"> Chapter 10 of Moore, McCabe, and Craig. Skim the early parts of Chapter 11 of Moore, McCabe, and Craig.
8	10/17	<ul style="list-style-type: none"> EXAM #1 	
9	10/24	<ul style="list-style-type: none"> Large N Quantitative Data Analysis: Linear & Non-linear Regression <i>PS6 is posted online</i> 	<ul style="list-style-type: none"> Chapter 11 of Moore, McCabe, and Craig.
10	10/31	<ul style="list-style-type: none"> Large N Quantitative Data Analysis: Linear & Non-linear Regression <i>PS6 is due</i> <i>PS7 is posted online</i> 	<ul style="list-style-type: none"> Chapter 11 of Moore, McCabe, and Craig.
11	11/07	<ul style="list-style-type: none"> Examine the distinct utility, rules, and tricks of qualitative social science. <i>PS7 is due</i> 	<ul style="list-style-type: none"> Matthews, R. (2000). Storks Deliver Babies ($p = 0.008$). <i>Teaching Statistics</i>, 22(2), 36-38. Cohen, J. (1994). The Earth is Round ($p < .05$). <i>American Psychologist</i>, 49(12), 997. Steven Bernstein, Richard New Lebow, Janice Gross Stein, and Steven Weber, "God Gave Physics the Easy Problems: Adapting Social Science to an Unpredictable World," <i>European Journal of International Relations</i>, Vol. 6, No. 1 (2000). Gary Goertz & James Mahoney, <i>A Tale of Two Cultures: Qualitative and Quantitative Research in the Social Sciences</i> (Princeton, NJ: Princeton University Press, 2012). Read Chapter 2: Mathematical Prelude: A Selective Introduction to Logic and Set Theory for Social Scientists; Chapter 3: Causes-of-Effects and Effects-of-Causes; and Chapter 4: Causal Models. Available as an e-book through UT Libraries.
12	11/14	<ul style="list-style-type: none"> Discussion of a well-crafted qualitative research paper(s). 	<ul style="list-style-type: none"> Geoff Dudley, "Why do ideas succeed and fail over time? The role of narratives in policy windows and the case of the London congestion charge," <i>Journal of European Public Policy</i>, Vol. 28, No. 8, pp. 1139-1156.

Week	Date	Topic	Readings
			<ul style="list-style-type: none"> Paul Musgrave and Daniel H. Nexon, "Defending Hierarchy from the Moon to the Indian Ocean: Symbolic Capital and Political Dominance in Early Modern China and the Cold War," <i>International Organization</i>, Summer 2018, pp. 591-626.
13	11/21	<ul style="list-style-type: none"> Discussion of a well-crafted qualitative research paper(s). 	<ul style="list-style-type: none"> Dan Slater and Joseph Wong, "The Strength to Concede: Ruling Parties and Democratization in Developmental Asia," <i>Perspectives on Politics</i>, Vol. 11, No.3 (September 2013), pp. 717-733. David Collier and Steven Levitsky, "Democracy with Adjectives: Conceptual Innovation in Comparative Research," <i>World Politics</i>, Vol. 49, No. 3 (April 1997) pp. 430-451.
14	11/28	<ul style="list-style-type: none"> <u>THANKSGIVING HOLIDAY</u> 	
15	12/05	<ul style="list-style-type: none"> Individualized consultation for student teams on Research Briefs. 	
16	12/12	<ul style="list-style-type: none"> <u>EXAM #2</u> 	
17	12/15	<ul style="list-style-type: none"> <u>EXAM #3: Research Brief Due</u> 	

Relevant University Guidelines & Resources

Academic Integrity

Each student in the course is expected to abide by the University of Texas Honor Code.

Plagiarism is taken very seriously at UT. Therefore, you must cite your sources if you use words or ideas that are not your own (or that you have used in the previous class). Otherwise, you will be guilty of plagiarism and subject to academic disciplinary action, including failing the course. You are responsible for understanding UT's Academic Honesty and the University Honor Code, which can be found at the following web address:

<http://deanofstudents.utexas.edu/conduct/academicintegrity.php>

Religious holidays

A student who misses classes or other required activities, including examinations, for the observance of a religious holy day, should inform the instructor as far in advance of the absence as possible so that arrangements can be made to complete an assignment within a reasonable period after the absence. A reasonable accommodation does not include substantial modification to academic standards or adjustments of requirements essential to any program of instruction. See

<https://catalog.utexas.edu/general-information/academic-policies-and-procedures/attendance/>

University Resources for Students

Your success in this class is important to me. If circumstances inside or outside the classroom prevent you from learning or exclude you, please let me know as soon as possible. I will work with

you to develop strategies to meet your needs and the course requirements. There is also a range of resources on campus. See <https://disability.utexas.edu/sample-page/>

Counseling and Mental Health Center

I urge students who are struggling for any reason and believe that it might impact their performance in the course to reach out to me if they feel comfortable. This will allow me to provide any resources or accommodations that I can. If professional mental health assistance is needed, see <https://healthyhorns.utexas.edu/cmhc/>

BeVocal

BeVocal is a university-wide initiative to promote the idea that individual Longhorns have the power to prevent high-risk behavior and harm. At UT Austin, all Longhorns have the power to intervene and reduce harm. To learn more about BeVocal and how you can help build a culture of care on campus, visit wellnessnetwork.utexas.edu/BeVocal.

Safety information & emergency evacuation routes

If you have concerns about the safety or behavior of fellow students, TAs, or Professors, call BCAL (the Behavior Concerns Advice Line): 512-232-5050. Your call can be anonymous. If something doesn't feel right – it probably isn't. Trust your instincts and share your concerns.

Link to information regarding emergency evacuation routes and emergency procedures can be found at <https://preparedness.utexas.edu/emergency-plans>

Title IX Reporting

Title IX is a federal law that protects against sex and gender-based discrimination, sexual harassment, sexual assault, sexual misconduct, dating/domestic violence, and stalking at federally funded educational institutions. UT Austin is committed to fostering a learning and working environment free from discrimination in all its forms. When sexual misconduct occurs in our community, the University can:

1. Intervene to prevent harmful behavior from continuing or escalating.
2. Provide support and remedies to students and employees who have experienced harm or have become involved in a Title IX investigation.
3. Investigate and discipline violations of the University's [relevant policies](#).

Beginning January 1, 2020, Texas [Senate Bill 212](#) requires all employees of Texas universities, including faculty, to report any information to the [Title IX Office](#) regarding sexual harassment, sexual assault, dating violence, and stalking that is disclosed to them. Texas law requires that all employees who witness or receive any information of this type (including, but not limited to, in written forms, applications, and class assignments) must be reported.

I must report any Title IX-related incidents disclosed in writing, discussion, or one-on-one. Before talking with me or any faculty or staff member about a Title IX-related incident, be sure to ask whether they are a responsible employee. If you want to speak with someone for support or remedies without making an official report to the University, email advocate@austin.utexas.edu. For more information about reporting options and resources, visit titleix.utexas.edu or contact the Title IX Office at titleix@austin.utexas.edu.