

Poli 30: Political Inquiry

Course Content Syllabus

This is one of two syllabi for the course. This syllabus outlines the learning outcomes, readings, and assignments for each class session. All assigned readings and videos are on TED. Please refer to the Course Policies Syllabus for the policies of the course; including but not limited to office hours, attendance, grades, students with disabilities, and academic integrity.

Course

Poli 30: Political Inquiry

time: monday and wednesday 11:00am - 1:50pm

class location: Warren Lecture Hall (WLH) 2208

Instructor

Nathan Combes (preferred name: Nathan)

email: ncombes@ucsd.edu

office: social science building 332

office hours: every weekday 3:00pm - 4:00pm

Teaching Assistant

Liesel Spangler (preferred name: Liesel)

email: lspangle@ucsd.edu

office: social science building 326

office hours: Tuesday 12:00pm-1:00pm

Course Learning Objectives

By the end of this course; you should be able to:

- Calculate basic descriptive statistics and inferential statistics (mean, median, mode, standard deviation, variance, chi square, t-statistics, and Z-Scores)
- Interpret a regression table and translate what it says into common English
- Demonstrate entry level skills in STATA (multivariate OLS regression)
- Critically assess the use of statistics in media and politics

Week 1

Monday, August 3rd: *Science and Course Introduction*

- Learning Objectives
 - Describe the key components of the scientific method
 - Defend why Political Science should be defined as a science or not
 - Create sensible hypotheses when given two variables
- Reading for before this class
 - What is the "scientific method"? - UCR
 - What is the Scientific Method? - Explorable
- Distribute practice final - Due Wednesday (not a graded assignment, but it is required to be turned in)

Wednesday, August 5th: *Descriptive Statistics and Variables*

- Learning Objectives
 - Calculate Mean, Median, and Mode
 - Explain the difference between nominal, interval, and ordinal data
 - Define the two types of measurement error
- Reading for before this class
 - Nominal, Interval, Ordinal, and Ratio Data - My Market Research
 - Mean, Median, and Mode - Purple Math

Week 2

Monday, August 10th: *Standard Deviation*

- Learning Objectives
 - Calculate Standard Deviation
 - Explain what the standard deviation of a set of data means
 - Explain why knowing the standard deviation is important
- Reading for before this class
 - Standard Deviation - Math is Fun
 - Watch Khan Academy Video: Range, Variance, and Standard Deviation as Measures of Dispersion

Wednesday, August 12th: *Z-Scores*

- Learning Objectives
 - Define the normal distribution
 - Accurately read a Z-table and find the Z-score for a given level of significance
 - Calculate Z-Statistic
- Reading for before this class
 - Normal Distribution - Math Is Fun
 - Z-Scores - Laerd
 - Read this page and watch videos

Week 3

Monday, August 17th: *T-Tests*

- Learning Objectives
 - Calculate a T-Statistic
 - Explain what the “true mean” is in common English, and why we will never know what the true mean is
 - Define the central limit theorem
- Reading for before this class
 - Watch this video from StatsCast about T-Tests

Wednesday, August 19th: *Chi-Square*

- Learning Objectives
 - Calculate Chi-Square statistic
 - Interpret a chi-square statistic
 - Explain how chi-square relates to t-tests in common English
- Reading for before this class
 - Chi Square - Stat Trek

Week 4

Monday, August 24th: *Spurious Variables*

- Learning Objectives
 - Explain how a chi-square test of independence can be used in a misleading way
 - Define and think of examples of spurious variables
 - Define and think of examples of Intervening variables
- Reading for before this class
 - Spurious Correlations - Tyler Vigen
 - Spurious Correlations - William Burns
 - Correlation Causation and Controls - Harvard

Wednesday, August 26th: *Bivariate OLS Regression*

- Learning Objectives
 - Explain how a regression relates to chi-square test of independence
 - Interpret the coefficient, constant, and significance in a regression table
 - Write a regression equation in mathematical form and explain each symbol's meaning
- Reading for before this class
 - Watch this video on Bivariate Regression
 - Bivariate Regression ND
 - Bivariate Regression UMICH

Week 5

Monday, August 31st: *Multivariate OLS Regression*

- Learning Objectives
 - Explain why the values in a multivariate regression are different from the corresponding bivariate regression
 - Interpret the coefficients of control variables in a multivariate regression table
 - Run a multivariate regression in STATA
- Reading for before this class
 - Multivariate Regression - OnlineStatBook
 - Multivariate Regression - Biddle
- STATA Assignment distributed and is due at the beginning of Friday's final

Wednesday, September 2nd: *Analyzing Statistics in the Media and Final Review*

- Learning Objectives
 - Think of potential intervening variables in statistics in the media
 - Think of potential spurious variables in statistics in the media
 - Review for Final
- Reading for before this class
 - Watch "Immigration Numbers Rise - Environment Suffers"
 - Watch "Immigration by the Numbers - Part 1"

Friday, September 4th

- Final: 11:30am - 2:30pm

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Course Policies Syllabus

This is one of two syllabi for the course. This syllabus outlines the policies for the course; including but not limited to office hours, attendance, grades, students with disabilities, and academic integrity. Please refer to the Course Content Syllabus for learning outcomes, readings, and assignments.

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office hours: Tuesday 12:00pm-1:00pm

Office Hour Policy

My goal is for office hours to be as welcoming and useful to students as possible. You are welcome to ask any questions or make any statements that you have in office hours, including "I'm simply lost". If you are lost, we can work together to get you caught up in the material.

Please feel free to have a friend accompany you to office hours, whether or not they are enrolled in this course. Coming to office hours with classmates can be very enriching because another student may ask a question that you did not think of. If you cannot find a classmate to join you in office hours, but you are more comfortable meeting with instructors in a non one-on-one situation, I welcome and encourage you to bring a friend.

Standards of Academic Integrity

Please don't cheat. I will make attempt to ensure that you learn the material and that cheating will not be necessary to get the correct answers. If at any point you feel behind, please let me know so that we can work together to bring you up to speed. Cheating is unfair to yourself as you will not learn the material. Cheating is also unfair to your classmates and to the UCSD population, as it diminishes our universities reputation. I will hand any case of suspected cheating over to the Office of Academic Integrity as well as assign zeros to all students involved in cheating.

iClickers

In this course we will use clickers to stimulate discussion as well as to ensure that the content is being effectively taught. Students are required to have an iClicker and to bring it to class daily. Often, questions will be presented for the sole purpose of soliciting student opinions, feedback, and ideas: these questions will not be graded. Questions that measure students content knowledge will be graded; and all questions will be weighted equally. Students will be informed which questions are graded and which are not.

Notecards

I will frequently use 3x5 notecards to get feedback from students. Some times this may take the form of a quiz, other times it will be for anonymous feedback. You are always welcome to take a second notecard in order to send me some anonymous feedback or to ask an anonymous question. Just grab a second card and turn it in with the rest of the notecards.

Quizzes

Poli 30 is a course that builds on itself. In earlier weeks, we will learn how to calculate and interpret confidence intervals. Knowledge of confidence intervals is necessary to be able to properly interpret regression tables, which we will learn in the final sessions of the course. Thus, it is important that we make sure that students are learning at each stage of the process. As such, every class session will end with an in class quiz. The quizzes will only cover content that was taught during that day's session. These are each worth 2% of your final grade (for a total of 20%).

Grading Scheme

A: 94+	C+: 77-79
A-: 90-93	C: 74-76
B+: 87-89	C-: 70-73
B: 84-86	D: 60-69
B-: 80-83	F: 59-

A C is the minimum passing grade to receive a *Satisfactory* on the S/U scale. All grades will be rounded to the nearest whole number

Grading Formula

- iClickers: 20
- Quizzes: 20
- STATA Assignment: 20
- Final Exam: 40

Absence Policy

Every class session will be worth a total of 4% of your final grade (2% for quizzes and 2% for clicker questions). Unexcused absences will not be penalized beyond the forfeiture of these points. Those with excused absences will be allowed to regain the points through take home assignments, however, those assignments are due at the beginning of the class session that you return; no late assignments will be accepted. Documented excuses are determined by university policy and must have a signature from a doctor, coach, etc.

Office for Student Disabilities

Students requesting accommodations and services for this course due to a disability need to provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD) prior to eligibility for requests. Receipt of AFAs in advance is necessary for appropriate planning for the provision of reasonable accommodations. OSD Academic Liaisons also need to receive current AFA letters if there are any changes to accommodations. For additional information, contact the Office for Students with Disabilities: 858-534-4382 (V); 959-534-9709 (TTY) - reserved for people who are deaf or hard of hearing; or email osd@ucsd.edu. OSD website: <http://disabilities.ucsd.edu>.

A Welcoming Environment for All Students

I require that my classroom be a welcoming environment for all persons. Please feel free to let me know of anything that I can do to make the classroom a more welcoming environment for you. Please feel free to tell me your preferred name and preferred gender pronoun. I will make sure to use the terminology that makes you feel welcome in the classroom, and you should feel comfortable writing whichever name you prefer on your assignments. If your preferred name deviates significantly from the name on my official roster, please inform me of that privately simply so I can manage my gradebook. In a similar vein, I require that each of you treat each other with respect and courtesy.