

SYLLABUS
PLSC 216: Political Numbers
Spring 2025

TTh 8:30 – 9:45 am
Crown Center 105

Instructor

Dr. Eric Hansen

Email: ehansen4@luc.edu

Office Location: Coffey Hall 325

Office Hours: TTh 10 – 11:30 am; or by appointment for remote meetings

Course Description and Objectives

Quantitative data is everywhere. Businesses use it to understand their customers, professional sports leagues use it to evaluate athlete performance, and journalists use it to explain societal trends to readers. The political world is becoming increasingly data-oriented as well, in applications ranging from election forecasting to policy evaluation. It is important to understand how to interpret and apply quantitative data to work in the professional world and make sense of the political world. This course introduces students to the fundamentals of quantitative reasoning, applied statistics, and statistical software.

This course fulfills the Quantitative Knowledge requirement for the Core Curriculum.

By completing this course, students should be able to:

- 1) Apply statistical reasoning to political questions
- 2) Understand and critique claims made using quantitative data
- 3) Use two software packages (Stata and Excel) to conduct rudimentary statistical analyses
- 4) Identify research questions and create basic quantitative research designs to answer those questions

Course Structure

A week's schedule will include the following components, unless I inform students otherwise:

- **Lecture & Discussion.** Classes on Tuesdays will be dedicated to instruction and discussion of concepts.
- **Reading Assignments.** Weekly reading assignments should be completed by Tuesdays at class time.
- **Thursday Activities:** Most Thursdays, students will be assigned an in-class activity. Most activities will guide students how to program concepts in Excel or Stata, while others will be small group activities to analyze or simulate concepts.
- **Homework Assignments:** I will assign homework assignments to reinforce lessons from in-class activities. Homework should be completed alone. Homework will not be

assigned every single week, so please be attentive to due dates listed on the reading calendar below and to verbal reminders in class.

Required Texts

Wheelan, Charles. 2014. *Naked Statistics: Stripping the Dread from the Data*. New York: W.W. Norton & Company.

Software

This course will focus heavily on hands-on, applied learning. We will use two software packages: Microsoft Excel and Stata. These software packages are available for use on all open access university computers at both campuses. If you have a computer, you probably have Excel installed as part of the Microsoft Office package. You have three options for accessing Stata for free. You can (1) email ITS to ask for one free installation on your personal device, (2) access it remotely through Apporto at luc.apporto.com, or (3) use any open-access lab computer on campus (e.g. at the Information Commons). Dr. Hansen will share instructions on how to access Stata in the first two weeks of class.

Beyond the resources provided in class, the internet is overflowing with “how to” resources, especially for Excel. There are also great free resources to help you with using Stata. One of the best comes from UCLA (<https://stats.idre.ucla.edu/stata/>). In addition, you can get help using any command from within Stata by typing “help [command name]” (where instead of [command name] you type the name of the command). Of course, I am also happy to help with any questions you have.

Grades

Final grades for the course will be based on the following scale. I reserve the right to make adjustments to individual grades based on overall performance in the course and/or extenuating circumstances.

Letter Grade	Percentage Score
A	93-100
A-	90-92.99
B+	87-89.99
B	83-86.99
B-	80-82.99
C+	77-79.99
C	73-76.99
C-	70-72.99
D+	67-69.99
D	60-66.99
F	59.99 or below

The proportion of each assignment as part of your overall grade is as follows:

Thursday Activities: 15%

Homework: 45%

Midterm Exam: 20%

Final Exam: 20%

Thursday Activities

Every Thursday, individually or in groups, students will complete a tutorial on Stata or Excel. Unless otherwise indicated on the reading calendar below, each guided activity must be submitted to Sakai. Submissions will be graded on completion. Thursday activities can only be completed in class and submitted during the open submission window on Sakai. Students must sometimes miss class for reasons outside their control, so I will drop the lowest two grades for Thursday activities for all students.

Homework

Students will complete four graded homework assignments throughout the semester. Each assignment is worth 10% of the course grade except the final assignment, which will be worth 15%. Homework will assess students' skills applying concepts in class to work in Excel and Stata. Due dates for all homework assignments are listed on the reading calendar below. Late homework submissions can be submitted at anytime after the due date until the final exam time for a 10 percentage point penalty. You can submit late assignments to Sakai, but please inform me if you've submitted late so I don't miss late submissions when calculating final grades.

Midterm & Final Exam

There will be two exams during the semester. Each exam will be worth 20% of the final grade. Due to the nature of the course content, the final exam will be cumulative. The format will be a combination of multiple choice, application, and essay questions, with the final particularly focused on application questions. A student who cannot take the midterm exam at the scheduled time should make every effort to reschedule *in advance*. I will allow a makeup exam with a 10 percentage point penalty, and no more than two class meetings can pass between the scheduled exam time and the makeup exam. I do not request or accept doctors' notes. I understand students must sometimes miss class for reasons outside their control, which is why the rescheduling penalty is small. I will not offer the final exam at any time besides our scheduled exam time unless the student has petitioned their dean's office for a change.

Attendance and Punctuality

Students are expected to attend class to participate in discussions of the course material. There is no formal attendance requirement, but students who regularly attend class will have an advantage in understanding the content and performing well on class assignments and exams.

I will begin class promptly at our designated meeting time. Students should arrive five minutes before class begins in order to find a seat and make any preparations of materials before class starts. Getting to class ahead of time is also a courtesy to other students, who may become distracted by late arrivers. Students who must routinely arrive late due to circumstances outside their control (for example, a class immediately before mine on the opposite side of campus) should inform me at the beginning of the semester.

Communication, Office Hours, Question about Grades

Please direct all communication with me outside class or office hours through my campus email account, which can be found in the header of this syllabus. I check my campus email account several times daily and will try to reply to student emails as quickly as possible. That being said, students should not necessarily expect me to reply immediately to emails sent to me at the last minute. I may not be able to reply to questions about course material the morning of an exam or provide resources for an assignment the night before it is to be turned in.

My office hours exist solely for you to visit me with questions about this class. If you can't make those times, email me to schedule a more convenient appointment time. I reserve the right to refuse to make special appointments outside of office hours with students who have missed prior appointments.

Email is only for brief communications. If you have long and complicated questions, come to my office hours. I will not send grades over email—check Sakai for the latest updates. After I have graded and returned your assignments, there is a 24-hour moratorium before I will answer questions about that assignment.

Technology Use

We will spend many class periods learning statistical software, and therefore in-class computer use is an essential part of the course. Psychological research shows that for complex tasks (say, learning statistics), multitasking significantly slows learning and productivity. Therefore, it is very likely that students who scroll TikTok during class will either (a) have to spend extra time and effort outside of class learning the material on their own or (b) feel silly when the exam is in front of them.

The use of cell phones or other mobile communication devices is strictly prohibited during synchronous class meetings, except in the event of an emergency. Cell phones minimally should be put on silent but preferably should be turned off. Students discovered using their phones during class time will be asked to turn off their phones and place them out of reach.

Student Accessibility

Loyola University provides reasonable accommodations for students with disabilities. Any student requesting accommodations related to a disability or other condition is required to register with Students Accessibility Center (SAC), located in Sullivan Center, Suite 117. Students should provide me with an accommodation notification from SAC, preferably within the first two weeks of class. Students are encouraged to meet with me individually in order to discuss their accommodations. All information will remain confidential. For more information or further assistance, please call (773) 508-3700 or visit <http://www.luc.edu/sac>.

Notice of Reporting Obligations for Responsible Campus Partners

As an instructor, I am a Responsible Campus Partner (“RCP”) under Loyola’s **Comprehensive Policy and Procedures for Addressing Discrimination, Sexual Misconduct, and Retaliation** (available at www.luc.edu/equity). While my goal is for you to be able to engage fully and authentically with our course material through class discussions and written work, I also want to be transparent that as a RCP, **I am must notify the Office for Equity &**

Compliance ("OEC")/Title IX Coordinator when I have any information about conduct that reasonably may constitute Title IX Sex-Based Discrimination.

Title IX Sex-Based Discrimination includes any of the following conduct, when the conduct was within the University's education program or activity:

- **Discrimination or discriminatory harassment on the basis of sex** (including sex stereotypes, sex characteristics, gender identity, sexual orientation, and Pregnancy or Related Conditions),
- **Sexual harassment** (including *quid pro quo* and hostile environment sexual harassment),
- **Sexual assault,**
- **Dating and/or domestic violence,** and/or
- **Stalking**

As the University's **Title IX** office, the OEC coordinates the University's response to reports and complaints of sexual misconduct (as well as discrimination of any kind) to ensure students' rights are protected.

As an instructor, I also have an obligation under Illinois law to report disclosures of or suspected instances of child abuse or neglect (<https://www.luc.edu/hr/legal-notices/mandatedreportingofchildabuseandneglect/>).

The University maintains such reporting requirements to ensure that any student who experiences sexual/gender-based violence receives accurate information about available resources and support. Such reports **will not generate a report to law enforcement** (no student will ever be forced to file a report with the police). Additionally, the University's resources and supports are available to all students even if a student chooses that they do not want any other action taken. If you have any questions about this policy, you are encouraged to contact the OEC at equity@luc.edu or 773-508-7766.

If you ever wish to speak with a **confidential** resource regarding gender-based violence, I encourage you to call **The Line** at 773-494-3810. The Line is staffed by confidential advocates from 8:30am-5pm M-F and 24 hours on the weekend when school is in session. Advocates can provide support, talk through your options (medical, legal, LUC reporting, safety planning, etc.), and connect you with resources as needed -- *without* generating a report or record with the OEC. More information about The Line can be found at luc.edu/wellness.

Statement on Religious Holidays

As a Jesuit, Catholic university, Loyola University Chicago invites people of all faiths and traditions to be a part of our community and we are committed to supporting students to grow in their faith traditions. I will work to accommodate students if the observance of a major religious holiday interferes with a student's academic work. If a student is unable to attend a class, participate in a test or quiz, be present for a presentation, or complete an assignment on a specific day because of the observance of a religious holiday, the student will be excused and provided the opportunity to make up the work. Students will continue to be responsible for all assigned work and should notify me in advance through Loyola email of the religious observance(s) that

conflict with their classes. Campus Ministry has published a list of religious holidays likely to affect Loyola students. This list can be found on the [Campus Ministry website](#).

Academic Integrity

Students are responsible for adhering to university policy on academic honesty by avoiding acts of plagiarism or cheating. Students can find more information about what constitutes plagiarism at the Writing Center's website: (<http://www.luc.edu/writing/studentresources/onlineresources>). Consult the College of Arts and Sciences' statement to learn more about college policy: (<http://www.luc.edu/cas/advising/academicintegritystatement>). I reserve the right to exercise case-by-case discretion in assigning penalties for acts of academic dishonesty. Generally speaking, however, students should expect to receive a score of "0" on any assignment or exam where they are observed plagiarizing, cheating, or passing off someone else's ideas as their own. If more than one instance occurs during the semester, offending students should expect to fail my course. I report deliberate acts of academic dishonesty to the office of the Dean of College of Arts and Science.

Statement on AI Use

I will allow the use of ChatGPT or other AI tools for some, but not all, graded assignments. Use of AI / ChatGPT on quizzes and exams is strictly prohibited. AI / ChatGPT may be used to polish writing for other homework assignments, but not originate it. If students use AI / ChatGPT to polish their writing, they must (1) provide an original transcript of the text they fed to the AI software with their final assignment and (2) note how and where AI was used at the end of your assignment. AI / ChatGPT may be used to help with coding in .do files (STATA) but does not need to be disclosed. Students are responsible for any mistakes that AI software makes and will be graded accordingly. Failure to comply with this policy is considered a violation of academic integrity and will be subject to the sanctions described in the previous section. You do not have to use these tools, and you will learn more if you don't.

Readings

Students are expected to complete weekly reading assignments in preparation for class. Students should read carefully and be ready to discuss the material. I reserve the right to make changes to the reading list and will inform students well in advance of any changes. All reading assignments are to be completed by class time Tuesday of the indicated week.

Students are responsible for obtaining their own copies of the Wheelan textbook. All other articles/chapters will be posted on Sakai. Students may not share course materials with others outside of the class without my written permission.

Week of...	Theme/Topic	Readings
January 13	Introduction	Read course syllabus (by Tuesday) Read Wheelan Intro & Ch. 1 (by Thursday) <i>Thursday Activity: Guide 1</i>

January 20	Measurement and Description	Read Wheelan Ch. 2 <i>Thursday Activity: Guides 2 & 3</i>
January 27	Hypotheses, Relationships, and Nominal Variables	Read Wheelan Ch. 3 <i>Thursday Activity: Guide 4</i>
February 3	Continuous Variables	Read Wheelan Ch. 4 <i>Thursday Activity: Guides 5 & 5a</i> Homework 1 Due: Friday 5 pm
February 10	Sampling & the Central Limit Theorem	Read Wheelan Ch. 5-7 <i>Thursday Activity: Probability (ungraded)</i>
February 17	Inference, Hypothesis Testing & T-Tests	Read Wheelan Ch. 8 & 9 <i>Thursday Activity: Guide 6</i> Homework 2 Due: Friday 5 pm
February 24	Midterm	<i>No reading</i> <i>Midterm Exam Thursday</i>
March 3	<i>No class – Spring Break</i>	
March 10	Polling & Data	Read Wheelan Ch. 7 & 10 <i>Thursday Activity: Polling</i>
March 17	Bivariate Regression	<i>No assigned reading</i> <i>Thursday Activity: Guide 7</i>
March 24	Multiple Regression	Read Wheelan Ch. 11 <i>Thursday Activity: Guide 8</i>
March 31	Assumptions, Estimated Effects, and Interactions	Read Wheelan Ch. 12 <i>Thursday Activity: Guide 9</i> Homework 3 Due: Friday 5 pm

April 7	Correlation vs. Causation	Read Wheelan Ch. 13 <i>Thursday Activity: TBD</i>
April 14	Reading Scientific Literature	Read Banks & Hicks, “The Effectiveness of a Racialized Counterstrategy” <i>Thursday Activity: Lab (ungraded)</i>
April 21	Lab & Review	<i>No assigned reading</i> <i>Tuesday: Lab</i> <i>Thursday: Final Exam Review</i> Homework 4 Due: Friday 5 pm
May 3	Final Exam – 9:00 am	

Changes to the Syllabus

I reserve the right to make changes to this syllabus at any time. If changes are made, students will be informed through email and verbally in class, and a new syllabus document will be posted on Sakai.