SYLLABUS
PLSC 216: Political Numbers
Loyola University Chicago
Spring 2026

MWF 2:45 – 3:35 pm
Crown Center 105

Instructor

Dr. Eric Hansen
Email: ehansen4@luc.edu
Office Location: Coffey Hall 325
Office Hours: Mondays 3:45 – 6:45 pm, or by appointment

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

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:

In-Class Assignments: 30%
Unit Exam 1: 20%
Unit Exam 2: 20%
Final Exam: 30%

In addition, students must pass at least one of the three exams to pass the class. Scoring below 60% on all three exams will result in an F in the course regardless of the calculated course grade.

In-Class Assignments
Periodically, I will give in-class assignments. These assignments will be both pen-and-paper and online activities. All assignments are a chance to recall ideas and practice skills from the class. All are graded on completion alone.

Make-up Assignments: Students must sometimes miss class for reasons outside their control, so I will drop the lowest three grades for all students' in-class assignments. I will not allow make-up opportunities for any reason for a grade, though students are welcome to attend office hours to

go over the content of missed assignments. If student absences are excused, I will remove the missed assignment from the course calculation rather than allow a graded make-up assignment. The Office of the Provost has defined excused absences in only six circumstances: (1) jury duty, (2) military service, (3) religious observances, (4) athletic or university-sanctioned events, (5) legally mandated accommodations (e.g. Title IX, ADA), or (6) pandemics. All other absences are unexcused, including temporary illness.

Unit Exams & Final Exam
There will be three exams during the semester, consisting of two unit exams and a final. Each unit exam will be worth 20% of the final grade. The final exam will be worth 30% of the final grade. Due to the nature of the course content, all exams will necessarily be cumulative. The format will be a combination of multiple choice, application, and essay questions, with the final particularly focused on application questions.

Make-Up Exams: A student who cannot take the unit exam at the scheduled time should make every effort to reschedule *in advance*. I will allow a makeup exam with a ten 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. The penalty is waived only for students with an excused absence. The Office of the Provost has defined excused absences in only six circumstances: (1) jury duty, (2) military service, (3) religious observances, (4) athletic or university-sanctioned events, (5) legally mandated accommodations (e.g. Title IX, ADA), or (6) pandemics. All other absences are unexcused, including temporary illness.

I will not offer the final exam at any time besides our scheduled exam time unless the student has four exams scheduled within a 24-hour period and has petitioned the College of Arts and Sciences for a time 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 must attend regularly to receive credit for in-class assignments. Students who regularly attend class will have an advantage in understanding the content and performing well on 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 outside business hours or 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 browsing the internet during class will either (a) have to spend extra time and effort outside of class learning the material on their own or (b) perform poorly 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
The purpose of this class is for students to develop their individual ability to evaluate, produce, and think critically about statistical claims. That can only be achieved through personal engagement with ideas and material. Therefore, students may not use artificial intelligence (AI) to generate ideas or create text for any written assignments in this class. Students suspected of using ChatGPT, Gemini, Claude, or any similar services to complete their written assignments will be subject to the sanctions described in the previous section. 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.s

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**	**Reading Assignment**	**Readings**
January 12	Introduction	Wheelan Intro + Ch. 1	M: Course syllabus/introductions W: Evaluating/Producing Claims + Math Anxiety + faulty claims exercise F: Descriptive stats lecture + activity
January 19	Measurement and description	Wheelan Ch. 2	M: No class (MLK Day) W: Measurement lecture F: Measurement activity

January 26	Descriptive Statistics		M: Guide 1/computer primer W: Guide 2 (more Excel) F: Guide 3 (intro to Stata)
February 2	Nominal Variables	Wheelan Ch. 3	M: Nominal variables lecture W: Guide 4 (part 1) F: Guide 4 (part 2)
February 9	Continuous Variables	Wheelan Ch. 4	M: Continuous variables lecture W: Guide 5 (part 1) F: Guide 5 (part 2)
February 16	Recoding + Midterm		M: Recoding Practice W: Unit Review F: Unit Exam
February 23	Polling and Data	Wheelan Ch. 7	M: Polling Lecture W: Polling Exercise F: Data Exercise
March 2			*No class – Spring Break*
March 9	Sampling & the Central Limit Theorem	Wheelan Ch. 8	M: Sampling and CLT Lectures W: Law of Large Numbers activity F: Dice activity
March 16	Inference, Hypothesis Testing & T-Tests	Wheelan Ch. 9	M: Hypothesis test lecture W: T-Test lecture + experiment F: Guide 6
March 23	Bivariate Regression		M: Bivariate regression lecture W: Guide 7 F: Interpretation activity
March 30	Multiple Regression	Wheelan Ch. 11	M: Unit review W: Unit exam F: No class (Easter Break)
April 6	Multiple Regression II		M: No class (Easter Break) W: Multiple regression lecture F: Guide 8
April 13	Predicted Values and Estimated Effects	Wheelan Ch. 12	M: Interpretation activity W: Predicted values lecture F: Interpretation activity
April 20	Correlation vs. Causation + Interpreting Lit		M: Correlation lecture W: Scientific lit exercise F: Final exam review
May 1	**Final Exam – 4:15 pm**		

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.