# POLS 2000 Methods in Political Science

Spring 2023 (Section: 2000-01) MWF: 1:10-2:00 (In-person)

Dr. Post Basnet

Office: McGannon #124 Office Hours: Friday 2-5 p.m. E-mail: post.basnet@slu.edu

Class: McGannon Computer Lab #118

## **Course Description:**

The purpose of this course is to introduce students to the scientific research process in political science. We will begin with the logic of social scientific inquiry and the basics of research design, and then move on to the qualitative and quantitative methods that are commonly used by political scientists to answer important political questions. Students will learn how to examine data, interpret results, and conduct empirical research. Throughout the course, students will use STATA, a widely used statistical software package in social sciences. We will discuss how to formulate theoretical arguments, build hypotheses, and find ways to test them. The course will prepare students for more advanced coursework in social sciences, for starting their own research, and for a life as an informed citizen. Students are expected to finish the assigned readings before the class begins, attend classes regularly, and participate actively in class discussions.

### **Requirements and Evaluation:**

- 1. Participation: Students are expected to finish the course readings before the class period for which they are assigned and participate actively in class discussions. Your attendance and participation are vital for the success of this course. It will constitute 15% of your final grade.
- 2. Homework Assignments: There will be 8 homework assignments, each of which will be posted on Canvas one week before the due date. Homework assignments will be worth 20% of the total course grade. Students can discuss homework assignments with their classmates, but all final work must be their own.
- **3. Exams**: There will be two exams that will have a wide variety of questions. The final will be cumulative for the entire course. The mid-term and final exams will be worth 15% and 20% of your final grade respectively.

- 4. Research Design: Students are expected to complete several assignments that will culminate in a research design. It will be worth 30% of your final grade. Students will explore a topic of their interest, find a puzzle, review the existing literature, come up with a theory and test it with some empirical methods. Students are free to choose any topic for the research, but it should be closely related to political science. Students will complete and submit several assignments throughout the semester that will lead to a research design and present it in the class during the final week.
  - A. Research Question and Bibliography: There will be mandatory meetings between students and the instructor during the third week of the course to discuss your research topic (we will discuss this in detail in the class). Students are required to prepare a research question and write a 5 page (double spaced) annotated bibliography containing a minimum of 10 articles or books (all academic works) for your research. Due: February 24. It will be worth 5% of your final grade.
  - B. Literature Review: Students will read the existing works, summarize the readings, and prepare a detailed literature review. This section should be at least 5 pages long (double spaced). Due: March. 15. It will be worth 5% of your final grade.
  - C. Theory: Students will write a theory and hypotheses for their research. It will be worth 5% of the final grade. Due: April 1
  - D. Emprical strategy: Students will identify the type of data they need and find ways to get the data. In the papers, students will also identify variables, the ways to measure them and the method they plan to use. Due: April 15. It will be worth 12 5% of your final grade.
  - E. Full Research Design: It will be a well-crafted 12-15 page (double spaced) research design. It will have an introduction, literature review, theory, and a data and methods section. Due May: 6. It will have 10% of your final grade.
  - F. Presentation: During the final week, each student is required to present her paper in the classroom. Your classmates will ask questions and make comments and suggestions to improve your paper. Dates for this 10-minute presentation for each student will be decided later. It will be 5% of your final grade.

#### Grades:

Class Participation - 15% Research Design – 30% Homework (8) 20% (2.5% each) Research- 30%

- a) Research Question/Annotated Bibliography 5%
- b) Literature Review 5%
- c) Research Plan 5%
- d) Full Research Design 10%
- e) Presentation 5%

Mid-term Exam 15% Final Exam 20%

Your final grades will be assigned that correspond to the following numeric scale:

Α	93-100	B+	87-89	C+	77-79	D	60-70
A-	90-92	В	83-86	C	73-76	F	below 60
		B-	80-82	C-	70-72		

# **Academic Integrity and Honesty:**

Academic integrity is honest, truthful and responsible conduct in all academic endeavors. The mission of Saint Louis University is "the pursuit of truth for the greater glory of God and for the service of humanity." Accordingly, all acts of falsehood demean and compromise the corporate endeavors of teaching, research, health care, and community service via which SLU embodies its mission. The University strives to prepare students for lives of personal and professional integrity, and therefore regards all breaches of academic integrity as matters of serious concern.

The governing University-level Academic Integrity Policy was adopted in Spring 2015, and can be accessed on the Provost's Office website at: https://www.slu.edu/provost/policies/ academic-and-course/policy\_academic-integrity\_6-26-2015.pdf.

Additionally, each SLU College, School, and Center has adopted its own academic integrity policies, available on their respective websites. All SLU students are expected to know and abide by these policies, which detail definitions of violations, processes for reporting violations, sanctions, and appeals. Please direct questions about any facet of academic integrity to your faculty, the chair of the department of your academic program, or the Dean/Director of the College, School or Center in which your program is housed.

## **Disability Services Academic Accommodations:**

Students with a documented disability who wish to request academic accommodations must formally register their disability with the University. Once successfully registered, students also must notify their course instructor that they wish to use their approved accommodations in the course.

Please contact the Center for Accessibility and Disability Resources (CADR) to schedule an appointment to discuss accommodation requests and eligibility requirements. Most students on the St. Louis campus will contact CADR, located in the Student Success Center and available by email at accessibility\_disability@slu.edu or by phone at 314.977.3484. Once approved, information about a student's eligibility for academic accommodations will be shared with course instructors by email from CADR and within the instructor's official course roster. Students who do not have a documented disability but who think they may have one also are encouraged to contact to CADR. Confidentiality will be observed in all inquiries.

#### Title IX:

Saint Louis University and its faculty are committed to supporting our students and seeking an environment that is free of bias, discrimination, and harassment. If you have encountered any form

of sexual harassment, including sexual assault, stalking, domestic or dating violence, we encourage you to report this to the University. If you speak with a faculty member about an incident that involves a Title IX matter, that faculty member must notify SLU's Title IX Coordinator and share the basic facts of your experience. This is true even if you ask the faculty member not to disclose the incident. The Title IX Coordinator will then be available to assist you in understanding all of your options and in connecting you with all possible resources on and off campus.

Anna Kratky is the Title IX Coordinator at Saint Louis University (DuBourg Hall, room 36; <a href="mailto:anna.kratky@slu.edu">anna.kratky@slu.edu</a>; 314-977-3886). If you wish to speak with a confidential source, you may contact the counselors at the University Counseling Center at 314-977-TALK or make an anonymous report through SLU's Integrity Hotline by calling 1-877-525-5669 or online at <a href="http://www.lighthouse-services.com/slu">http://www.lighthouse-services.com/slu</a>. To view SLU's policies, and for resources, please visit the following web addresses: <a href="https://www.slu.edu/about/safety/sexual-assault-resources/index.php">https://www.slu.edu/about/safety/sexual-assault-resources/index.php</a>.

#### **Face Masks (Until further notice):**

Throughout the COVID-19 pandemic, key safeguards like face masks have allowed SLU to safely maintain in-person learning. If public health conditions and local, state, and federal restrictions demand it, the University may require that all members of our campus community wear face masks indoors.

Therefore, any time a university-level face mask requirement is in effect, face masks will be required in this class. This expectation will apply to all students and instructors, unless a medical condition warrants an exemption from the face mask requirement (see below).

#### When a university-wide face mask requirement is in effect, the following will apply:

- Students who attempt to enter a classroom without wearing masks will be asked by the instructor to put on their masks prior to entry. Students who remove their masks during a class session will be asked by the instructor to resume wearing their masks.
- Students and instructors may remove their masks briefly to take a sip of water but should replace masks immediately. The consumption of food will not be permitted.
- Students who do not comply with the expectation that they wear a mask in accordance with the University-wide face mask requirement may be subject to disciplinary actions per the rules, regulations, and policies of Saint Louis University, including but not limited to those outlined in the *Student Handbook*. Non-compliance with this policy may result in disciplinary action, up to and including any of the following:
  - o dismissal from the course(s)
  - o removal from campus housing (if applicable)
  - o dismissal from the University
- To immediately protect the health and well-being of all students, instructors, and staff, instructors reserve the right to cancel or terminate any class session at which any student fails to comply with a University-wide face mask requirement.

When a university-wide face mask requirement is not in effect, students and instructors may choose to wear a face mask or not, as they prefer for their own individual comfort level.

## **ADA Accommodations for Face Mask Requirements**

Saint Louis University is committed to maintaining an inclusive and accessible environment. Individuals who are unable to wear a face mask due to medical reasons should contact the Office of Disability Services (students) or Human Resources (instructors) to initiate the accommodation process identified in the University's <u>ADA Policy</u>. Inquiries or concerns may also be directed to the <u>Office of Institutional Equity and Diversity</u>. Notification to instructors of SLU-approved ADA accommodations should be made in writing prior to the first class session in any term (or as soon thereafter as possible).

#### **Student Success Center:**

In recognition that people learn in a variety of ways and that learning is influenced by multiple factors (e.g., prior experience, study skills, learning disability), resources to support student success are available on campus. The Student Success Center assists students with academic-related services and is located in the Busch Student Center (Suite, 331). Students can visit https://www.slu.edu/life-at-slu/student-success-center/ to learn more about tutoring services, university writing services, disability services, and academic coaching.

## **University Writing Services:**

Students are encouraged to take advantage of University Writing Services in the Student Success Center; getting feedback benefits writers at all skill levels. Trained writing consultants can help with writing projects, multimedia projects, and oral presentations. University Writing Services offers one-on-one consultations that address everything from brainstorming and developing ideas to crafting strong sentences and documenting sources. For more information, visit https://www.slu.edu/life-at-slu/student-success-center/ or call the Student Success Center at 314-977-3484.

#### **Basic Needs Security:**

Students in personal or academic distress and/or who may be specifically experiencing challenges such as securing food or difficulty navigating campus resources, and who believe this may affect their performance in the course, are encouraged to contact the Dean of Students Office (deanofstudents@slu.edu or 314-977-9378) for support. Furthermore, please notify the instructor if you are comfortable in doing so, as this will enable them to assist you with finding the resources you may need.

#### **Required Texts:**

There are two textbooks that are required for this course (available for purchase at the Saint Louis University Bookstore in the Busch Student Center). The additional readings will be made available via Canvas.

Philip H. Pollock III and Barry C. Edwards. 2019. *The Essentials of Political Analysis*, 6th ed. Sage/CQ Press. ISBN 978-1-5063-7961-6.

Powner, L. C. (2014). *Empirical research and writing: A political science student's practical guide*. CQ Press.

#### **Class Schedule and Readings:**

#### Week 1: Overview of the Course

(January 17-19)

#### Wednesday:

-Introduction to the Class

-Reading: None

<u>Friday</u>: What is a research question?

-Reading: Powner: chapter 1(From Research Topic to Research Question, pp. 1-12)

Lab#1 (4:15-7 p.m., Wednesday)

# Week 2: Scientific Approach to Knowledge

(January 23, 25, 27)

This topic will introduce students to the scientific study of politics. We will discuss how the scientific approach differs from other approaches, and how it works in political science. We will discuss the roles of theories and hypotheses in the research process. Students are expected to understand the primary goals of political science and how these goals are achieved.

Monday: Scientific Approach to Knowledge

-Paulos, John Allen. 1995. *A Mathematician Reads the Newspaper*, pp. 151-153 (FDA Caught between Opposing Protesters: Statistical Tests and Confidence Intervals)

-Pollock & Edwards: Introduction (pp. xxi-xxvi)

Wednesday: Theories and hypotheses

- Pollock & Edwards: chapter 3 (pp. 72-85), chapter 10 (pp. 313-319)

Friday: Theories and hypotheses cont'd

-No reading

Lab #2 (4:15-7 p.m., Wednesday)

## Week 3: Research Design and Causality

(January 30, February 1, 3)

How is political science research similar or different from research in the natural sciences? We will discuss how experimental designs work in the natural sciences and the limitations of this approach in political science. We will also look at the difference between correlation and causation and some strategies to help overcome these problems.

Monday: Experiments

-Pollock & Edwards: chapter 4 (pp.105-127)

-Ansolabehere, Stephen, Shanto Iyengar, Adam Simon, and Nicholas Valentino.1994. "Does Attack Advertising Demobilize the Electorate?" *American Political Science Review* 88, 4 (December): 829-838

Wednesday: Threat to Causality

-Pollock & Edwards: chapter 5 (135-161)

-Campbell, Donald T., and H. Laurence Ross. 1968. "The Connecticut Crackdown on Speeding: Time-Series Data in Quasi-Experimental Analysis." *Law and Society Review* 3, 1: 33-54. Friday: Case studies, comparative method, and statistical methods

-Lijphart, A. 1971. "Comparative politics and the comparative method." *American political science review*, 65(3), 682-693.

-Ishiyama, John. 1993. "Founding Elections and the Development of Transitional Parties: The Cases of Estonia and Latvia, 1990-1992." *Communist and Post-Communist Studies* 26, 3 (September): 277-299.

Lab #3 (4:15-7 p.m., Wednesday) Homework-1 due, February 3, Friday, 11.59 p.m.

## Week 4: Political Science Research Skills

February 6, 8 (February 10, Wellness Day, No Class)

This topic will cover a number of skills that will be invaluable in the rest of your undergraduate studies: what to look for when reading political science research; how to search for relevant research and write a literature review; how to evaluate sources when researching a case study (or reading the news, writing a research paper, or collecting data); and why, when, and how to cite your sources.

Monday: Researching and writing literature reviews

-Pollock & Edwards: chapter 10 ("Reviewing Prior Literature" section, pp. 319-321)

-Knof, Jeffrey. 2006. "Doing a Literature Review." *PS: Political Science and Politics* 31(1): 127-132.

Wednesday: Evaluating sources in research

-Thies, Cameron. 2002. "A Pragmatic Guide to Qualitative Historical Analysis in the Study of International Relations." *International Studies Perspectives* 3: 351-372.

-Pollock & Edwards: chapter 10 ("Writing It Up" section; pp. 327-330)

Lab #4 (4:15-7 p.m., Wednesday)

Homework-2 due on February 10, Friday, 11.59 p.m.

## Week 5: Concepts, Variables, and Measurement

February 13, 15, 17

We will discuss the differences between concepts, variables, and indicators. We will then consider measurement error and issues related to reliability and validity. We will explore how political scientists get their data and discuss the benefits and drawbacks of using existing data sets as well as collecting your own data.

Monday: Concepts and variables

-Pollock & Edwards: chapter 1 (pp. 1-27)

-Pollock & Edwards: chapter 10 (Collecting Data section, pp. 321-327)

Wednesday: Interview

-Leech, B. 2002. "Asking Questions: Techniques for Semistructured Interviews." PS: Political Science & Politics, 35(4):665–668.

-Aberbach, J.D. and Rockman, B.A., 2002. "Conducting and coding elite interviews." PS:

Political Science & Politics, 35(4):673-676

Friday: Survey

-Zaller and Feldman. 1992. "A Simple Theory of the Survey Response: Answering Questions versus Revealing Preferences." American Journal of Political Science 36:579-616.

<u>Lab #5</u> (4:15-7 p.m., Wednesday)

Homework-3 due, Feb 17, Friday (11.59 p.m.)

## Week 6: Descriptive Statistics

February 20, 22, 24

We will now focus on specific methods and techniques that we use in political science. We will discuss the use of descriptive statistics to summarize data, beginning with bar/pie graphs/charts, and histograms. We will then discuss the measures of central tendency (mean, median, and mode) and measures of dispersion (such as standard deviation). These techniques are important for a basic understanding of any variable.

Monday: Intro to descriptive statistics

-Pollock & Edwards: chapter 2 (pp. 34-64); Chapter 3 (pp. 85-97)

Wednesday: Describing nominal and ordinal-level data

-No new reading

Friday: Describing interval-level data

-No new reading

Lab #6 (4:15-7 p.m., Wednesday)

## Week 7: Sampling and Inferential Statistics

February 27, March 1, 3

How do researchers understand the characteristics of an entire population by using a small sample of individuals? We will look at what pollsters and survey designers say and how they make predictions. We will discuss probability and normal distribution and how these tools are applied for statistical inference, such as the calculation of confidence intervals.

**Monday**: Intro to Sampling

-Pollock & Edwards: chapter 6 (pp. 167-194)

-Cohn, Nate. 2017. "A 2016 Review: Why Key State Polls Were Wrong About Trump." New

#### York Times.

 $\frac{https://www.nytimes.com/2017/05/31/upshot/a-2016-review-why-key-state-polls-were-wrong-about-trump.html}{}$ 

Wednesday: Sampling, continued

-No new reading

**Friday**: Estimating population parameters

-No new reading

Lab #7 (4:15-7 p.m., Wednesday)

Homework-4, March 3, Friday (11.59 p.m.)

#### Week 8. Exam#1 & Review

Exam-1 Review: March 6

Exam-1: March 8

## Week 9: March 13-17: Spring Break

# Week 10: Statistical Significance & Hypothesis Testing

March 10, 20, 22, 24

Here we begin to examine the process of hypothesis testing, which is used to determine whether the differences we observe are 'statistically significant' (a key element in the scientific research process). The basic ideas from this topic will be important to everything else that we will cover in the rest of the course.

#### Monday:

-Pollock & Edwards: chapter 7 (pp. 199-201)

Wednesday: Significance, continued

-No new reading

Friday: Wednesday: Significance, cont'd

-No new reading

<u>Lab #10 (4:15-7 p.m., Wednesday)</u>

Homework-5 Due, March 24, Friday

## Week 11: Hypothesis Testing: Categorical Variables

March 27, 29, 31

We will discuss the use of statistical significance for hypothesis testing about categorical (nominal or ordinal) variables. We will explore crosstabulation and Chi-square (X2) tests, which are used to examine the significance of the relationship between variables.

Monday: Crosstabs and X2 tests

-Pollock & Edwards: chapter 3 (Cross-tabulations; pp. 86-89), chapter 7 (Chi-Square, pp. 215-

222)

Wednesday: Crosstabs and X2 tests cont'd

-No new reading

Friday: Association between nominal/ordinal-level variables

-Pollock & Edwards: chapter 7 (pp. 222-232)

-Pollock & Edwards: chapter 9 ("Odds Ratio", pp. 288-291)

Homework-5 Due March 31, Friday, 11:59 p.m.

Lab#11 (4:15-7 p.m.), Wednesday

## Week 12: Hypothesis Testing: Continuous/Interval Variables

April 3, 5 (April 7, Easter Break)

We will examine how we test hypotheses about continuous or interval level variables. First, we will discuss the ways to examine the difference of means between two samples and then examine analysis of variance (ANOVA), which is used to compare the means across more than two groups.

Monday: Difference of means tests

-Pollock & Edwards: chapter 7 (pp. 201-215)

Wednesday: Difference in means tests cont'd/ Analysis of Variance (ANOVA

-No new reading

<u>Lab #12</u>(4:15-7 p.m., Wednesday)

Homework-6 due, April 7, Friday, 11.59 p.m.

#### Week 13: Correlation and Regression

April 12, 14 (April 10, Easter Break)

We will focus on the relationship between one independent variable and one dependent variable. This will cover the interpretation of bivariate regression and such matters as significance testing and assessing model fit.

Wednesday: Association between variables

-Pollock & Edwards: chapter 8 (pp. 239-244)

Friday: Bivariate regression

-Pollock & Edwards: chapter 8 (pp. 244-257)

Homework Assignment 8 Due

<u>Lab #13</u> (4:15-7 p.m., Wednesday)

Homework-7 due, April 14, Friday, 11.59 p.m.

## Week 14: Regression Cont'd

April 17, 19, 21

We will consider multiple regression analysis and some extensions such as the use of dummy variables and interaction terms. We will also briefly examine logit models. These techniques are commonly used in political science research.

Monday: Multiple regression

-Pollock & Edwards: chapter 8 (pp. 257-272) Wednesday: Multiple regression, cont'd

-No new reading

Friday: Multiple regression cont'd

-No new reading

Lab #14 (4:15-7 p.m., Wednesday)

Homework-8 due, April 21, Friday, 11.59 p.m.

## Week 15: Wrapping up

April 24, 26, 28

We try to wrap up the course and review the things we have covered in the course.

<u>Monday:</u> Logistic regression and advanced methods --Pollock & Edwards: chapter 9 (Logistic Regression)

<u>Friday: Powner:</u> chapter 11 (Posters, Presentations, and Publishing)

Wednesday: Research Process/presentations

Lab#15 (4:15-7 p.m., Wednesday)

#### Week 16: Student Presentations

(May 1, 3, 5)

Monday: Presentation Wednesday: Presentation Friday: Presentation

#### Week 17: Exam & Review

May 8: Review #Exam 2 Final Exam: 15 May, 12-1:50