POLS 5020: Advanced Topics in Research Methods  
Spring 2016  
T 4:20-6:50  
McGannon Computer Lab

Instructor: Dr. Jason Windett  
Office: McGannon Hall 152  
Office Hours: T 12-3, and by appt.

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Course Description

This course provides an introduction to graduate level statistical analysis for social science research. As you have already completed or are enrolled in courses that focus heavily on issues of theory, design, and qualitative methods, the scope of this course will be aimed solely at quantitative analysis. The statistical tools you will learn in fact form the foundation of empirical research methods in all forms of scientific inquiry. We will begin with an examination of single variables, measures of central tendency, and dispersion. We will then begin exploring measures of associations and hypothesis testing. We will extend this discussion to include bi-variate and multi-variate linear regression. We will conclude with an introduction to generalized linear models (GLMs).

Course Objectives

This course is designed to help students broaden their knowledge, skills, and values so that they will be able to:

- consume empirical evidence in a sophisticated manner, including ability to identify methodological shortcomings.
- understand the fundamentals of statistical analysis, including the underlying assumptions of such work.
- devise appropriate methodological means to answer meaningful questions related to Political Science.
- carry out data collection and analyses using relevant software.
- present evidence using both written and visual representations.
- understand research ethics and the importance of transparency and replicability in quantitative analysis.

My Teaching Philosophy

I believe that my role in the classroom is to help you learn the class material, as well as skills such as clear writing, speaking, and critical thinking. Towards this end, I develop a class that calls upon
students to engage in reading, writing, talking, and listening. I want you to learn; I try to help make the material and tasks as clear as possible so that you are able to learn. I have an open door policy and will work with you to help you master class and reading material.

**Your Learning Philosophy**

If you want a high grade with a minimum amount of work, you should reconsider graduate school. You will need to be dedicated to keeping up with the reading load and course assignments. If you want to be better prepared for future classes in the MA program, have a higher understanding of research methods, and enhanced writing skills, this is a class you will do well in. As graduate students, I expect that you will consistently come to class prepared and ready to participate. All work turned in will be your own. If you are caught cheating or plagiarizing, you will automatically fail the course.

**Course Materials Required for Purchase**


**Recommended**


**Course Assessment**

Assignments: 15%
Final Research Paper: 35%
Midterm Exam: 20%
Final Exam: 30%

**Exams**

There will be a midterm exams and final exam. The midterm exam will be worth 20% of your final grade each while the cumulative final exam counts for 30% of your final grade.
Assignments

You will gain hands on experience in numerous different topics in research methods, as well as using STATA software. This is a statistical package that will allow you to manipulate and analyze data. Teamwork and collaboration are highly encouraged on assignments, however, everyone must turn in their own assignment. There will not be a group submission. Your classmates may help you in mastering the assignments, but in the end, you will be responsible for completing all assigned work. All assignments will be started with a brief introduction to the topic/skills you will need to complete the exercises. You will turn in the completed assignments at the start of the following class session. A focus on this class will also be research ethics. As such, we will focus heavily on DA-RT (data access and research transparency) http://www.dartstatement.org/. DA-RT is an attempt to increase the research transparency in the discipline that we will go over in class. You will be required to turn in a do file and data electronically via dropbox for each class period. If you do not turn in the do file, you will receive a zero for the assignment. If your do file results do not match your turned in assignment, I will assume you copied a classmates work and you will fail the assignment.

Late assignments will not be accepted and you will receive a zero. The lab will be open on Fridays from 9-10 and again from 11-5. I will try to reserve the end of class each Tuesday to begin lab work, but this may not be possible given the time constraints. If this does not work, you may also purchase a license for Stata. They have perpetual, yearly, and six month available at http://www.stata.com/order/new/edu/gradplans/student-pricing/. If you purchase a license, be sure to purchase Stata IC or greater. Small Stata will not allow you to fully complete the assignments.

Research Project

You are responsible for a piece of co-authored original research using quantitative analysis. If you are working on an MA thesis or capstone, you may write a solo authored paper. The paper should take the form of a replication and extension of an existing piece of published research. I do not want you spending the semester trying to collect original data (unless you are working on an MA thesis). I would much rather you obtain an existing data set and extend the analysis. The front end outlining the theory and hypothesis will be much lighter than a traditional research paper since you are simply extending someone else’s work. This does not mean you shirk on theory, you will still need to fully articulate an argument. You should plan to use an OLS model for the paper. We will work with non-linear models towards the end of class, but this may not be in time for you to write a quality paper. If you feel you need a non-linear model, we can talk about this over the course of the class.

A replication paper must accomplish two things. First, you must replicate the existing piece of research in its exact published form. Second, you must extend the paper by including more variables, estimating a different model, etc. You will need to go to the original source of the data–i.e. the ANES, CCES, etc, and reproduce the exact data based on the specification in the published piece. You may not simply download the data posted on an author’s website and re-run the analysis. You need to make sure the data they use has not been massaged or tainted. This aspect of the project will require you to obtain data that is publicly available. If someone writes a paper based on their own personal data collection effort, but has not made the data publicly available, you will need to choose a new research topic. If you have questions about this, see me.
early in the semester. I do not want you to tell me the week before the paper is due that you can’t find the data. Over the course of the semester, you will be responsible for turning in assignments related to the research paper. You will turn in assignments on the following dates:

- Feb 2: 3 page prospectus is due via email by 6 p.m. This should outline the paper you are replicating, the scope of the extension, and the data necessary to complete the project.
- April 5th: Full draft of your paper due via email by class. I will mail the draft to two of your classmates who will give you a peer review of the article with comments.
- April 12th: Peer review due in class.
- April 26th: Final Papers due in class. You will also present your research during this class session.

This is not simply an exercise of throwing numbers into Stata and expecting a different outcome. This is still a theoretically motivated exercise. You must add something of value to the existing paper beyond simply including a new variable. You must engage both the replicated piece and the literature within the area of analysis. I want you to get your feet wet collecting data and running an analysis, but I want you to also be focusing on the theoretical implications for what you are doing.

Attendance and Participation

Attendance is required for every class meeting. Each class meeting will build on the material from previous sessions, so falling behind or missing some material is not an option. I expect students to be here every time and to come to class prepared. We simply have too much to cover to proceed any other way. Failure to attend will result in your overall course grade being lowered.

Grade Scale

Final grades for the course will be based on the following scale. I reserve the right to make adjustments to grades based on overall performance in the course. There will be no extra credit offered in the course, nor will there be curving grades.

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<tr>
<td>A</td>
<td>93-100</td>
<td>B-</td>
<td>80-82</td>
<td>D+</td>
<td>67-69</td>
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<tr>
<td>A-</td>
<td>90-92</td>
<td>C+</td>
<td>77-79</td>
<td>D</td>
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<tr>
<td>B+</td>
<td>87-89</td>
<td>C</td>
<td>73-76</td>
<td>F</td>
<td>62 or below</td>
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<td>B</td>
<td>83-87</td>
<td>C-</td>
<td>70-72</td>
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Expectations and Procedures

Technology

Put everything on mute. Keep cell phones in your bag or pocket—I do not want to see them. You do not need to use your laptop for this course as we will be in the computer lab. You will not need
the computer for the lectures, so please take notes the old fashion way. If I use additional material I will post it on blackboard so you may access it at a later point.

Communication

I will post grades, send class e-mails, etc... with Blackboard. Be sure that you can access the e-mail address listed. I will only send e-mail out to your SLU e-mail accounts listed on the course roster in Blackboard. I will not keep track of any other e-mail addresses you may use.

I am very accessible both during and after normal work days. Please feel free to contact me or stop by my office if you need to talk. Also, please contact me immediately if you are going to miss an exam or need to reschedule. I do not like to give make up exams, but under extenuating situations, I will make allowances. Please contact me prior to the exam if you need to reschedule, I will not allow make up exams if contacted after the exam period.

Academic Integrity Syllabus Statement

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:


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.

Specific College of Arts and Sciences Academic Honesty Policies and Procedures may be found at:

http://www.slu.edu/x12657.xml

All clear violations of academic integrity will be met with appropriate sanctions. Academic dishonesty on an assignment will result in an automatic grade of an F for the course and a report of academic dishonesty sent to the Academic Honesty Committee of the College of Arts and Sciences.

Title IX Syllabus Statement

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 misconduct (e.g. sexual assault, sexual harassment, stalking, domestic or dating violence),
we encourage you to report this to the University. If you speak with a faculty member about an
incident of misconduct, that faculty member must notify SLU’s Title IX coordinator, Anna R.
Kratky (DuBourg Hall, room 36; akratky@slu.edu; 314-977-3886) and share the basic fact of your
experience with her. 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.

If you wish to speak with a confidential source, you may contact the counselors at the Uni-
versity Counseling Center at 314-977-TALK. To view SLU’s sexual misconduct policy and for
resources, please visit the following web address: http://www.slu.edu/general-counsel-home/office-

**Student Success Center Syllabi Statements**

In an effort to be inclusive of students’ learning styles and needs with regard to academic support,
the following statement has been developed for use in course syllabi which identifies resources for
student support in various areas of learning. As faculty members construct their syllabi for future
courses, it is requested that they update materials to include new language regarding academic and
career related support offered to students through the Student Success Center.

The syllabus statement will be available throughout the year by visiting the following websites,
but we encourage you to place these resources on any departmental websites you feel necessary:

- Student Success Center: www.slu.edu/success
- Reinert Center for Transformative Teaching & Learning: www.slu.edu/cttl

**Student Success Center Syllabus Statement:**

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, a one-stop shop, which assists students with
academic and career related services, is located in the Busch Student Center (Suite, 331) and the
School of Nursing (Suite, 114). Students who think they might benefit from these resources can
find out more about:

- Course-level support (e.g., faculty member, departmental resources, etc.) by asking your
course instructor.

- University-level support (e.g., tutoring services, university writing services, disability services,
academic coaching, career services, and/or facets of curriculum planning) by visiting the
Student Success Center or by going to www.slu.edu/success.

**Disability Services Academic Accommodations Syllabus Statement**

Students with a documented disability who wish to request academic accommodations are en-
couraged to contact Disability Services to discuss accommodation requests and eligibility require-
ments. Please contact Disability Services, located within the Student Success Center, at Disability_
services@slu.edu or 314.977.3484 to schedule an appointment. Confidentiality will be observed in all inquiries. Once approved, information about academic accommodations will be shared with course instructors via email from Disability Services and viewed within Banner via the instructor’s course roster.

**Tentative Course Schedule**

Jan 12  Introductions
  EPA Chapters 1 and 2. Long Chapter 2
  Assignment due Jan 19, SCPA Chapters 1 and 2

Jan 19  Concepts and Variables
  EPA Chapter 3
  Assignment due Jan 26: SCPA Chapter 3

Jan 26  The Logic of Control
  EPA Chapter 4
  Assignment due Feb 2: SCPA Chapters 4

Feb 2  Making Controlled Comparisons
  EPA Chap 5
  Assignment due Feb 16: SCPA Chapter 5

Feb 9  Paper Meetings. 3 page paper prospectus due via email by Friday.

Feb 16  Hypothesis Testing
  EPA Chapter 6
  Assignment due Feb 23: SCPA Chapter 6

Feb 23  Measures of Association
  EPA Chapter 7
  Assignment due Mar 15: SCPA Chapter 7

Mar 1  In class Midterm Exam

Mar 8  No class: Spring Break

Mar 15  Correlation and OLS Part I
  EPA Chapter 8
  Assignment due Mar 22: SCPA Chapter 8

March 22  OLS Part II
  EPA Chapter 9
  Assignment due Apr 5: SCPA Chapter 9

Mar 29  In class writing day and paper meetings

Apr 5  Introduction to GLMs
  Long Chapter 3
Apr 12  Peer reviews due in class.
    Regression with Binary Outcomes
    EPA Chapter 9 and Long Chapter 4
    Assignment Due Apr 19: SCPA Chapter 10

Apr 19  Ordinal, Nominal and Count data
    Skim Long 5-8.

April 26  Paper Presentations. Final Papers due in class.

May 3    Final Exam. 4-5:50