POLS 502: Advanced Topics in Research Methods
Fall 2014
W 6-8:30
McGannon Computer Lab

Instructor: Dr. Jason Windett
Office: McGannon Hall 152

Office Hours: F 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.

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

• Acock, Alan C. 2010. A Gentle Introduction to Stata, 3rd edition. College Station, TX: Stata Press.

Course Assessment

Assignments: 25%
Final Research Paper: 60%
Prospectus: 5%
Peer Review: 5%
Presentation: 5%

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. 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
Wednesday 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:

- Sep 24: 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.
- Nov 12: Full draft of your paper due via email by 6 p.m. I will mail the draft to two of your
  classmates who will give you a peer review of the article with comments.
- Nov 19: Peer review due in class.
- Dec 3: 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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<thead>
<tr>
<th>Letter Grade</th>
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<tbody>
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<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>
<td>63-66</td>
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<tr>
<td>B+</td>
<td>87-89</td>
<td>C</td>
<td>73-76</td>
<td>F</td>
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<td>B</td>
<td>83-87</td>
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**Honor Code**

The University is a community of learning, whose effectiveness requires an environment of mutual
trust and integrity. Academic integrity is violated by any dishonesty such as soliciting, receiving,
or providing any unauthorized assistance in the completion of work submitted toward academic
credit. While not all forms of academic dishonesty can be listed here, examples include copying
from another student, copying from a book or class notes during a closed book exam, submitting
materials authored by or revised by another person as the student’s own work, copying a passage or
text directly from a published source without appropriately citing or recognizing that source, taking
a test or doing an assignment or other academic work for another student, securing or supplying
in advance a copy of an examination or quiz without the knowledge or consent of the instructor,
sharing or receiving the questions from an on-line quiz with another student, taking an on-line
quiz with the help of another student, and colluding with another student or students to engage in
academic dishonesty.

All clear violations of academic integrity will be met with appropriate sanctions. In this course,
academic dishonesty on an assignment will result in an automatic grade of F for the course and
a report of academic dishonesty sent to the Academic Honesty Committee of the College of Arts
and Sciences. In the case of Class B violations, the Academic Honesty Committee may impose a
larger sanction including, but not limited to, assigning a failing grade in the course, disciplinary
probation, suspension, and dismissal from the University.
Students should refer to the following SLU website for more information about Class A and B violations and the procedures following a report of academic dishonesty: http://www.slu.edu/x12657.xml

**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 lap top 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.

**Disabilities**

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. 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/writing services, Disability Services) by visiting the Student Success Center (BSC 331) or by going to www.slu.edu/success.

Students who believe that, due to a disability, they could benefit from academic accommodations are encouraged to contact Disability Services at 314-977-8885 or visit the Student Success Center. Confidentiality will be observed in all inquiries.

Course instructors support student accommodation requests when an approved letter from Disability Services has been received and when students discuss these accommodations with the instructor after receipt of the approved letter.
Tentative Course Schedule

Aug 27  No Class: Annual Meeting of the American Political Science Association
  EPA Chapters 1 and 2, Long Chapter 2
  Assignment due Sep 3, SCPA Chapters 1 and 2

Sep 3  Concepts and Variables
  EPA Chapter 3
  Assignment due Sep 10: SCPA Chapter 3

Sep 10 The Logic of Control
  EPA Chapter 4
  Assignment due Sep 17: SCPA Chapters 4

Sep 17 Making Controlled Comparisons
  EPA Chap 5
  Assignment due Oct 1: SCPA Chapter 5

Sep 24 No class. 3 page paper prospectus due via email by 6 p.m.

Oct 1  Hypothesis Testing
  EPA Chapter 6
  Assignment due Oct 8: SCPA Chapter 6

Oct 8 Measures of Association
  EPA Chapter 7
  Assignment due Oct 15: SCPA Chapter 7

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

Oct 22 OLS Part II
  EPA Chapter 9
  Assignment due Oct 29: SCPA Chapter 9

Oct 29 Introduction to GLMs
  Long Chapter 3

Nov 5 Regression with Binary Outcomes
  EPA Chapter 9 and Long Chapter 4
  Assignment Due Nov 19: SCPA Chapter 10

Nov 12 No class. National Women’s Studies Association Annual Meeting. Paper drafts due via email by 6 p.m.

Nov 19 Peer reviews due in class.
  Ordinal, Nominal and Count data
  Skim Long 5-8.
Nov 26 No Class. Thanksgiving Break

Dec 3 Paper Presentations. Final Papers due in class.