POLS 4150 - Research Methods in Political Science

Instructor: Dr. Andrew Pierce Fall 2019

<u>Meeting Information:</u> Class Time: MWF 12:20 pm - 1:10 pm Class Location: Baldwin Hall 0102 <u>Contact Information</u>: Office: Baldwin 304C Email: <u>apierce@uga.edu</u> Office Hours: By Appointment

Course Description:

The goal of this course is to provide students with an understanding of how to use a social scientific method to help understand the world. A social scientific method entails systematically approaching questions in such a way as to provide reliable insights about the world around us. This method and strategy will be useful for understanding upper-level social science research, but these tools enhance any efforts to make data-driven insights about the world.

By the end of the course, you should be able to:

- Identify and explain the role of theory and measurement in research
- Summarize the social science research process
- Assess the quality of data-driven insights using common statistical tools
- Analyze research questions using statistical software

Course Structure

This course will be taught using a team-based approach that encourages collaboration and active learning for individuals and teams. Most in-class time will be spent working on team activities that will allow you to directly apply key course concepts to various tasks.

Around 2/3 of the class will be built around lecture and reading, while the remaining third will be based on practical skills using the statistical software R. Students will be expected to bring laptops to class on lab days and actively participate in labs.

The Structure of Team-Based Learning

The Readiness Assurance Process (RAP) is an integral piece of a teaching approach called team-based learning. This process allows you numerous opportunities to demonstrate your comprehension of the reading and the course concepts while receiving immediate feedback on your progress. The RAP takes place in a sequence containing the following components.

1. *Readings-* At the start of each unit, you will complete a number of readings outside of class. These readings contain the core concepts and ideas of that particular unit.

While these may not be the only readings for a unit, they will provide you a foundation.

- 2. *Individual Reading Challenge (IRC)* The first in-class activity of each unit is the IRC, based upon assigned readings. These are in the form of a short quiz featuring multiple choice questions focused on the key concepts and ideas of the readings. They are designed to assess comprehension of these concepts as well as to maintain accountability for reading the assignments on time.
- 3. *Team Reading Challenge (TRC)* After finishing the IRC, you will take the same test as a team. You are allowed to discuss the questions as a team and decide on a final answer for each question. You will know immediately how well you did on both RCs, receiving an individual team score. Individual scores will remain anonymous, but team scores will be posted on the whiteboard to compare each team's progress.
- 4. *Appeals* After the TRC is completed, students can appeal any question they missed on the team test. This is an open-ended book process wherein students can submit appeals on questions they got wrong based on evidence from the text. Appeals will only be granted when they are fully supported by the text. Appeals must also be in writing and submitted by the end of the class period in which the TRC was taken. Only teams submitting an appeal will be eligible for receiving points back.
- 5. *R Labs* After learning theory behind research methods, we will have an opportunity to work through the practical application of these theories in R
- 6. *Peer Evaluation* Since much of the activities involved in class focus on team activities, students will have an opportunity to evaluate each other several times throughout the class. These anonymous peer evaluations will factor into your grade, and they allow you give and receive feedback about things that are going well in the team and things that need improvement

Assignments and Responsibilities:

Grading Components

- RCs 30% (33% IRC, 67% TRC)
- R labs and Participation 10%
- Exam 1 10%
- Final Exam –20%
- Final Poster 20%
- Peer Evaluations 10%

Assignments

- 1. RCs At the start of each units, you will be administered Reading Challenges
- 2. *R labs* These will be practical applications of research methods using R
- 3. *Exams* These will be short-answer, short-essay exams covering the material in the preceding units.

- 4. *Peer Evaluations* There will be one anonymous peer evaluation at the end of the course. Failure to turn in a peer evaluation will result in a grade of zero for this component of the course.
- 5. *Poster* At the end of the course, you will be submitting a poster summarizing realworld research findings. It contained abbreviated sections found in full research papers presented visually via poster or Power Point slide

Grading Scale

| 76.9%-73%: C |
|---------------|
| 72.9%-70%: C- |
| 69.9%-67%: D+ |
| 66.9%-60%: D |
| <59.5%: F |
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I reserve the right to curve grades upwards at the end of the semester based on individual performance.

Required Course Materials

- Paul M. Kellstedt and Guy D. Whitten. 2018. *The Fundamentals of Political Science Research*. Cambridge (3rd Edition).
- Monogan III, James E. 2015. *Political Analysis Using R*. Springer. (available free online at UGA library)

Note these are the only required texts for the beginning of the class; additional readings or multimedia viewings may be required as the semester progresses. You may buy this book in the bookstore or online; it is likely you will save money by buying a cheaper, used version online. You can expect around 20-30 pages a week of reading from each book, plus supplemental materials.

Course Prerequisites

Although there are no formal prerequisites, a layman's knowledge of math (e.g. you can add and subtract, and you understand how to count) will be necessary to understand the concepts at hand.

Course Policies:

Late Work

Assignments are due at the date and time I specify for the assignment. Late assignments will be marked off at 5 percentage points for the first 24 hours late, and an additional 10 percentage points for every subsequent 24 hours late. R Labs will not be accepted late.

Attendance Expectations

Due to the collaborative nature of this class, attendance is required and will be recorded. Unexcused absences will result in a grade of zero for the corresponding activity (e.g. quiz, application, exam). Excused absences, i.e. those with an institutionally approved reasons, will result in an excused grade, and the corresponding grade reweighted to reflect the excused grade.

In-class Behavior

Due to the collaborative nature of the in-class assignments, it is possible that class discussions may get heated or tensions may arise within groups. These occurrences are natural and very much like situations you will likely encounter in the workforce. As such, it is expected that you settle any disputes in a civil manner, and that you treat each other with the utmost respect.

One aspect of respect entails listening and considering the opinions of others. This is particularly important given that many students will elect to bring laptops to class in order to consult their notes during discussion. While acknowledging the strong temptation of the internet, it is expected that you participate actively with your team in discussion and not pursue other endeavors during class.

Make-up Exams

An exam may be re-taken under the following circumstances only:

- 1. Death in the immediate family (parent, spouse, sibling, or child) within 2 weeks before the exam.
- 2. Unforeseeable medical emergency affecting yourself, your spouse, or your child.
- 3. Participation in an official UGA-sponsored academic or sporting event

In the case of a death, you must provide me 24 hours advanced notice, and I reserve the right to require supporting documentation. For participation in UGA-sponsored events, you must provide me 2-weeks advance notice in order to make-up the exam.

Academic Misconduct

Cases of plagiarism and other forms of academic misconduct (e.g., cheating on exams) will be handled according to the UGA Honor Code, available on-line at https://honesty.uga.edu/Academic-Honesty-Policy/Introduction/.

Special Needs

I am more than willing to be accommodating with any qualified special needs you may have as communicated by UGA's Disability Resource Center. Feel free to contact me about any arrangements you may need.

Course Outline and Assigned Readings:

NOTE: This reading list is considered tentative and is subject to change based on class progress in meeting learning objectives.

| Date | Reading | Activity |
|--------------|---------------------|--|
| August 14 | | Class Intro |
| August 16 | | Intro to TBL |
| August 19 | | Social Scientific Reasoning |
| August 21 | | Structure of Social Scientific Papers |
| August 23 | | Installing R and RStudio |
| August 26 | K&W Ch. 1 | IRC 1, TRC 1 |
| August 28 | No Class | Conference |
| August 30 | No Class | Conference |
| September 2 | No Class | Labor Day |
| September 4 | | Academic Poster Presentations |
| September 6 | | Poster Workday – Social Science Topics |
| September 9 | K&W Ch. 2 | IRC 2, TRC 2 |
| September 11 | PAUR Ch. 1 | Loading Packages into R |
| September 13 | | Poster Workday – Theory Building |
| September 16 | K&W Ch. 3 | IRC 3, TRC 3 |
| September 18 | PAUR Ch. 2, 2.1-2.2 | Loading Data into R |
| September 20 | | Poster Workday – Literature Review |
| September 23 | K&W Ch. 4 | IRC 4, TRC 4 |
| September 25 | PAUR Ch. 3 | Visualization in R |
| September 27 | | Poster Workday – Research Design |
| September 30 | K&W Ch. 5 | IRC 5, TRC 5 |
| October 2 | PAUR Ch. 2, 2.3-2.5 | Manipulating Measurement in R |
| October 4 | | Poster Workday – Data Collection |
| October 7 | | Midterm Exam |
| October 9 | | Midterm Review |
| October 11 | At Home Workday | Work on Poster |

| October 14 | K&W Ch. 6 | IRC 6, TRC 6 |
|-------------|-----------------|---------------------------------------|
| October 16 | PAUR Ch. 4 | Summary Statistics in R |
| October 18 | | Poster Workday – Variable Measurement |
| October 21 | K&W Ch. 7 | IRC 7, TRC 7 |
| October 23 | | Probability in R |
| October 25 | | Poster Workday – Descriptive Stats |
| October 28 | K&W Ch. 8 | IRC 8, TRC 8 |
| October 30 | PAUR Ch. 5 | Hypothesis Testing in R |
| November 1 | No Class | Fall Break |
| November 4 | K&W Ch. 9 | IRC 9, TRC 9 |
| November 6 | PAUR Ch. 6, 6.1 | Bivariate Regression in R |
| November 8 | | Poster Workday - Regression |
| November 11 | K&W Ch. 10 | IRC 10, TRC 10 |
| November 13 | PAUR Ch. 6 | Multivariate Regression in R I |
| November 15 | | Poster Workday - Regression |
| November 18 | K&W Ch. 11 | IRC 11, TRC 11 |
| November 20 | PAUR Ch.6 | Multivariate Regression in R II |
| November 22 | | Poster Workday - Regression |
| November 25 | | Poster Workday - Conclusion |
| November 27 | At Home Workday | Work on Poster |
| November 29 | No Class | Thanksgiving |
| December 2 | | Course Review and Peer Evaluations |
| December 4 | | Final Exam & Posters Due |

Acknowledgements:

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