

Public Policy Research POL 604

Dr. Rachel Blum
Miami University
blumrm@miamioh.edu

Fall 2019

Class meets: T/TR, 10:05 am-12:10 pm, 10/23-12/7, HRN 002

Office hours: T/TR, 2:45-4:00 pm or by appointment.

1 Course Description

Public Policy Research (POL 604) is the second course in the Political Science M.A. program's quantitative methods sequence, conducted in a 'sprint' format. You will build on the statistical knowledge you acquired in POL 603 to learn how to make, test, and evaluate evidence-based claims about politics and policy. This course will acquaint you with the conceptual and technical tools to: 1) accurately and clearly summarize data, and 2) make and test sound statistical inferences. After successful completion of this course, you should be able to conduct your own independent research projects using the free statistical language R, and pursue additional methodological training if desired.

2 Student Learning Outcomes

This course will further the learning outcomes for MA students in Political Science in the following ways:

1. Through course readings and discussions, students learn to identify and apply methodology, design and analysis for a problem and understand ethical components of research choices.
2. Through course readings, discussions, and written assignments, students will learn to apply political science knowledge to contemporary issues and problems and identify and evaluate alternative political science-based solutions.
3. Students may draw on course material to formulate, propose and advocate political science-based solutions to contemporary political issues and problems.

4. Course assignments will provide students with introductory skills to conduct and communicate independent, professional-level investigations into sub-disciplinary problems and contribute to knowledge base.

3 Course Policies

In the classroom

- **Attendance:** Because this is a sprint course, it is essential that you attend as many sessions as possible, and that you come to every class prepared to actively discuss and engage in the readings and participate in discussions. I know that unforeseen circumstances might keep you from attending an occasional class session. I am happy to work with you in regards to absences if you notify me before class. I will not penalize you for missing class, although it will be up to you to catch up on the material you missed. This class moves very quickly, so I strongly encourage you to limit absences whenever possible.
- **Cell phones:** My expectation is that you will turn your phone off and place it in a bag or otherwise out of view during class time.
- **Labs and laptops:** We will use laptops for in-class labs, which will typically occur in the second half of class. Please have your computer charged and with you. Do not worry about taking verbatim notes on the slides, as these will be available on Canvas to download at your leisure.
- **Asking questions:** This material can initially seem complicated and confusing, especially if you are unfamiliar with the terminology and notation. You are encouraged to raise your hand whenever you have a question. I will always stop and call on you, and I will always take your questions seriously.

Outside of the classroom

- **Where to find assignments and class materials:** I will post these materials on our course Canvas site. Please check this and your email regularly.
- **Turning in assignments and due dates:** Please turn in assignments on time. If you need an extension, you must ask me for it before the assignment deadline has passed (with the exception of extenuating circumstances).
- **Best practices for problem sets:** To best facilitate the learning process, you are encouraged to work on problem sets as groups. If you work with a group, please note the names of your fellow study-group members at the top of the problem set. You are encouraged to work with one another on these problem sets, as long as your explanations are your own. If you get stuck, you can probably find additional answers in the textbook (in the computing corner at the end of each chapter, in the appendices, or in the online resources), in the syllabus, in a slide, or by googling the question.

- **Emailing me:** If you have a question about an assignment that you cannot answer using one of the methods detailed above, please contact me via email ASAP. If you believe that you have found an error or typo in an assignment, please contact me via email ASAP. When emailing me, please be as specific as possible with your question, and include any materials that might help me to answer your question (such as your code).
- **Academic dishonesty:** Cheating, plagiarism, and any form of academic dishonesty in any portion of the academic work for a course will not be tolerated and shall be grounds for awarding a grade of Withdrawal Academic Dishonesty (W(AD)) for the entire course. A W(AD) is calculated as an F in your grade point average. Note that working with a study group on a problem set *is not* cheating. If you're not sure if something is cheating, just ask!

4 Grading and Assignments

Grading System

- A range (90-100): Achievement that is outstanding relative to the level necessary to meet course requirements.
- B range (80-89): Achievement that is significantly above the level necessary to meet course requirements.
- C range (70-79): Achievement that meets course requirements in every respect.
- D range (60-69): Achievement that is worthy of credit even though it fails to meet fully the course requirements.
- F (0-59): Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed.

Any grading disputes must be made in writing within 48 hours of receiving the grade.

Graded Assignments

- Class participation: 10%. Participation includes attendance and discussion.
- Problem Sets: 25% (5 Problem Sets at 5 points each). Problem Sets will be assigned on Tuesdays, and due on the following Tuesday by class time. You are encouraged to work with one another on these problem sets, as long as your explanations are your own. We may work through some problems in class as well. I will make answer keys available on Canvas.
- Hackathon: 5%. The Hackathon will occur in the final week of class. I will give more details in class.

- **Quantitative Report: 25%.** Rather than asking you to write a full paper, I am asking you to write a report based on a statistical analysis. I will provide examples and instructions.
- **Final exam: 20%.** We will have a final exam due during the exam period. More instructions will be given in class.
- **Other activities: 10%.** This includes all complete/incomplete assignments (e.g., creating an RStudio cloud account, completing the pre and post knowledge assessments, etc.), as well as in-class activities.
- Extra credit opportunities will also be available throughout the semester.

Readings and Software

- **Readings:** Most of our readings will come from this **Required Textbook:** Michael A. Bailey. *Real Stats: Using Econometrics for Political Science and Public Policy*. Oxford University Press. 1st edition.
 - Datasets for the problem sets in this book can be found here.
 - For helpful summaries on **math and probability**, see the appendices to *Real Stats* (pg. 521-537).
 - I will make other assigned and supplementary readings available online.
- **Software:** We will use the free statistical software R to do analyses for this course. Each of you will need to create your own account on RStudio cloud. I will then invite you to our class's shared workspace.
 - RStudio cloud also has many helpful tutorials and reference sheets. Be sure to familiarize yourself with the resources available!
 - Note: you may also download RStudio to your desktop for personal use.

5 Schedule

- **Readings:** All readings should be completed by the assigned date. Readings from *Real Stats* are indicated as *RS*. All other readings will be on Canvas.
- **Problem Sets:** All problem sets are due by class time on their assigned date. Instructions will be posted on Canvas and in our RStudio cloud workspace.
- **Changes to syllabus:** As we go through the semester, occasional changes to the schedule may be necessary. I will both discuss these in class and publish these on Canvas in advance.

Day	Topic	Readings	Deliverables
Oct 24	Intro to Data Analytics	<i>RS</i> 1-2	Pre-knowledge assessment; Create RStudio account
Oct 29	Describing Bivariate Relationships	<i>RS</i> 4; RStudio Primer 1.2; Coding Tutorial	Problem Set 1 due
Oct 31	Testing Bivariate Relationships	<i>RS</i> 3 & 6.1	
Nov 5	Control Variables	<i>RS</i> 5; Achen (online)	Problem Set 2 due
Nov 7	Testing Multivariate Relationships	<i>RS</i> 6.2-6.4	
Nov 12	Tricky Dependent Variables	<i>RS</i> 12.3-12.6	Problem Set 3 due
Nov 14	No class		
Nov 19	Transforming and Recoding Data	RStudio Primer 2; Recoding Tutorial	Problem Set 4 due
Nov 21	Hackathon		
Nov 26	Presentation and Visualization	Tufte (online)	
Nov 28	NO CLASS	Thanksgiving break	
Dec 3	Relational Data	Readings online	Problem Set 5 due
Dec 3	Hackathon	Problem Set 5 due	
Dec 5	Recap and Presentations	<i>RS</i> ch. 16	Presentations in-class
Dec 6	Quantitative Report Due	Via Canvas	By 11:59pm
Dec 10	Final exam	10:15 am-12:15 pm	