[POLS 4150] Introduction to Quantitative Methods in Political Science

Professor Jason Anastasopoulos
ljanastas@uga.edu

University of Georgia

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About Me

My full name has 27 letters.

Professor Jason Anastasopoulos  janastas@uga.edu

[POLS 4150] Introduction to Quantitative Methods in Political Science
About Me

I grew up in New Jersey.

Professor Jason Anastasopoulos  janastas@uga.edu

[POLS 4150] Introduction to Quantitative Methods in Political Science
I have a crazy 9 month old named Seth.
About Me

I do research on public policy, political science and machine learning.

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About POLS 4150

- Course goals.
- Textbooks.
- R.
- Syllabus.
By the end of this course you will...

- Have a basic understanding of fundamental methods of statistical inference used in politics.
- Understand how these methods are used in everyday political discussion and research.
- Apply these methods to your own political research questions using the R software package.
- Be able to effectively critique any political poll, study or survey.
You should be able to answer questions like...

**Clinton Leads Trump in 4 Battleground States**

<table>
<thead>
<tr>
<th>State</th>
<th>Clinton</th>
<th>Trump</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>44%</td>
<td>33%</td>
</tr>
<tr>
<td>Florida</td>
<td>44%</td>
<td>33%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>44%</td>
<td>33%</td>
</tr>
<tr>
<td>Virginia</td>
<td>44%</td>
<td>33%</td>
</tr>
</tbody>
</table>

NBC News/WSJ/Maris polls, July 5-11

Why do political polls often differ from each other and from actual election results?
You should be able to answer questions like...

What does it mean when studies say things like heart attacks and red meat consumption are “linked”?

Professor Jason Anastasopoulos  
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You should be able to answer questions like...

Are Republicans and Democrats all that different in terms of the policy positions they hold?
You should be able to answer questions like...

Can we know whether one thing causes another using data and if so how?

Professor Jason Anastasopoulos  
iganastas@uga.edu

University of Georgia

[POLS 4150] Introduction to Quantitative Methods in Political Science
Textbooks

Statistical Methods for the Social Sciences
Fourth Edition

Political Analysis Using R

Professor Jason Anastasopoulos ljanastas@uga.edu

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- \texttt{R} is a programming language and a statistical computing environment.

- There are two major components to \texttt{R}.
  1. \textbf{Code} – Instructions that you give to \texttt{R}.
  2. \textbf{Interpreter} – The software that reads the instructions and executes them.
For this class you will need to download and install two things:

1. The R interpreter https://cran.r-project.org/
2. R-Studio—An integrated development environment for R which allows you simultaneously write code and send commands to the interpreter.
   https://www.rstudio.com/products/rstudio/#Desktop
We will discuss R in more detail next week.
Syllabus and course website

- The syllabus and other course materials can be found here:
  http://scholar.harvard.edu/janastas/pols-4150-quantitative-methods-political-science

- Requirements include
  1. Five problem sets.
  2. A midterm exam.
  3. Course project.
Problem Sets

- Problem sets are 20% of your total grade.
- Each problem set is 4% of your grade.
- Problem sets will involve a combination of programming, math and logic.
- All programming portions of the problem sets will be done in \( \mathbb{R} \).
Midterm exam

- The midterm is worth 25% of your grade and will take place on March, 2nd, 2017.
- It will involve, math, logic and interpretations of output from R.
Course project

- The course project is an opportunity to use real data and the methods you will learn in POLS 4150 to answer a political question that you’re interested in.
- You can work alone or in groups of 2 or 3.
- It is worth 45% of your total grade and is composed of three parts:
  1. Proposal.
  2. Presentation.
  3. Paper.
Course project sample questions

1. Which polls did the best job of predicting the outcomes of the 2016 election? Why did these polls perform better than others?
2. Is there a relationship between terrorist events and support for Republican or Democratic candidates?
3. How do Americans respond to Syrian refugees in their communities and what does this mean?
About you

1. Name
2. Year
3. Major
4. Political or non-political topic that you’re most interested in.