Course Description
Human beings are naturally inclined to develop explanations for things that happen in our environment. Our ability to attribute events to some causal narrative helps us make sense of the world. We do this for things in the physical world (Why was December so warm – global warming?) our social environment (why did Sally not respond to my email?) in the world of politics (why did the Russians invade Crimea?).

Our answers to these questions always involve some element of "theory" -- a core set of ideas and interrelated concepts that provide a basis for explanation. The explanations we propose are hypotheses about the event based on this conceptual framework. For example: "The Russians invaded Crimea because they are trying to rebuild their traditional empires from the Czarist and Soviet eras" (that's an answer rooted in IR theories of power politics) or "The Russians invaded Crimea because the economy isn't resulting in broad improvements in standard of living for the average Russian and Putin needed to distract them with this ready-made crisis" (that's a answer based in domestic diversionary war theories of foreign policy).

Our challenge as social scientists is to be explicit with our theoretical frameworks, self-critical about our assumptions and rigorous in our attempts to test our potential causal explanations (or hypotheses) by asking: "What have I missed?" or "Could I be wrong?"

This course is intended to introduce students to the science side of political science. Over the term you will be encouraged to think like social scientists, learn how to pose questions in the manner of our discipline, undertake a study of your own and present your findings in a customary fashion. You will also participate in an analysis of the work of other scholars (and your peers), a discussion of the strengths and weaknesses of various methodologies, and a broader critical evaluation of the application of the scientific method to the study of politics.


**Texts and Tools**


APSA Style Manual for Political Science (link -- the file is also linked below if this url fails)

A base workspace with dataset and scripts is set up in R Studio Cloud.

The following Web resources are going to be essential for work with R.

Rstudio Cloud - all students to work in R via RStudio Cloud served via a web-based platform.

QUICK-R:  http://www.statmethods.net/index.html
This site essentially serves as an alternative to an R-based methods textbook. The Quick-R site has some great copy and paste code (all you need to do is use your own data frames and variables) to perform most of the things we'll do in class. They have a very simple diagnostic chapter too!

**Grading**

Research Elements Weekly Short Papers X 9 Due Tuesdays (5 pts each) -- 45 point total

R-Labs x 9  Due Thursday (5pts Each) - 45 points total

Final Research Paper with Data Analysis -- 40 points

Final Week Short Presentation  -- 10 points

Participation & In-Class Quiz Engagement - 10 points

Final Grade is total score is out of 150 points as a percentage

Late Assignment Policy:  Keeping on pace with the short assignments and labs is a key to success in the course. Short assignments (graded out of 5) will be penalized .5 points for lateness. This is a one time penalty. You are encouraged to complete them even if late since they contribute to your final project.

**Short assignment grade guide** (or "How do I get 5/5?").

The grading for short assignments is as follows

4/5 or Lower:  Something was missing or the work was substandard, disorganized, or lacking in attention to detail in some way
4.5/5 Normal Grade, All required content is present, and as expected

5/5 Exemplary, All required content is present but with evidence of special attention to detail, engagement with challenging procedures, reference to lecture or textbook content, particularly good writing and organization. 5/5 is a perfect score and perfection is a high bar in methods. Do not expect to earn this often without a significant effort.

Weekly Course Plan

Asynchronous Elements - Watch Lecture Videos, Read Text Chapters

Synchronous In-Class Activities

Tuesdays
RESP from Previous Week Due BEFORE class on TUESDAY
Group Quiz - lecture and reading content & discussion
RESP follow-up discussion
In-class activities for new Research Elements Paper (due next Tuesday)

Thursdays
RLab from prior week due BEFORE class
RLab Discussion
New RLab Assignment Workshop (due next Thursday)

Week 1
Weekly Topic and Readings: The Scientific Study of Politics, Theory and Research Questions
K&W chapter 1 & 2
Lecture 1 Ontology and EpistemologyURL
Week 1 Lecture Slides (PDF)File Uploaded
Week 1 Research Elements Short Paper: Questions and ApproachesAssignment
R Lab #1 Using R, Variable Labels and DescriptionsAssignment

Week 2
Weekly Topic and Readings: Causality
K&W chapter 3 & 4
Lecture 2 CausalityURL
Week 2 Lecture Slides PDFFile Uploaded 11/04/20, 11:30
Week 2 Research Elements Short Paper - Finding and Evaluating LiteratureAssignment
R Lab #2 Recoding Variables and Subsetting DataAssignment
Week 3
Weekly Topic and Readings: Measurement: Levels, Validity, Reliability
K&W chapter 5 & 6
Lecture 3 Hypotheses and Measurement URL
Lecture 3 PDF File Uploaded 3/05/20, 11:17
Week 3 Research Elements Short Paper - Considering Data and Research Design Assignment
Data Sources Page
A list of websites with links to major data sources for RESP #3
R Lab #3 Data type changes and merging Assignment

Week 4
Weekly Topic and Readings: Sampling and Hypothesis Testing
K&W chapter 7 & 8
Lecture 4a Sampling URL
Lecture 4b Bivariate Analysis URL
Lecture 4b Bivariate PDF File Uploaded 3/05/20, 11:18
Lecture 4a Sampling PDF File Uploaded 3/05/20, 11:18
Week 4 Research Elements Short Paper - Project Proposal Assignment
R Lab #4 Bi-variate analysis aggregation and indexes Assignment

Week 5
Weekly Topic and Readings: OLS regression
K&W chapter 9
Lecture 5 OLS Regression URL
Lecture 5 OLS PDF File Uploaded 30/10/20, 19:48
Week 5 Research Elements Short Paper - Revised Proposal Assignment
R Lab #5 OLS Regression Assignment

Week 6
Weekly Topic and Readings: Multiple OLS regression
K&W chapter 10
Lecture 6 Multiple Regression URL
Lecture 6 Multiple Regression PDF File Uploaded 10/09/20, 11:22
Week 6 Research Elements Short Paper - Presenting Model Components Assignment
R Lab #6 Multiple OLS Regression Assignment
Data From GIL Paper File Uploaded 8/02/22, 12:54
upload this .csv file into your Rstudio Cloud and use the read.csv () function to make it a dataframe
Week 7
Weekly Topic and Readings: Logistic Regression Maximum Likelihood Estimation and Post-estimation Analysis
K&W chapter 12
Lecture 7a Logistic Regression MLE Estimation URL
Lecture 7b Logistic Regression Interpretation URL
Lecture 7 Logistic Regression PDF File Uploaded 10/09/20, 11:23
Week 7 Research Elements Short Paper - Table and Equation Assignment
R Lab #7 Logistic Regression Assignment
Logit Interpretation Example Code and data Folder

Week 8
Weekly Topic and Readings: Regression Diagnostics
K&W chapter 11
Lecture 8 Regression Diagnostics and Postestimation URL
Lecture 8 Regression Diagnostics PDF File Uploaded 10/09/20, 11:23
Week 8 Research Elements Short Paper - Substantive Analysis Assignment
R Lab #8 OLS Regression Diagnostics and Logit post-estimation Assignment
R Lab #8 Script for Logistic Postestimation Simulation File Uploaded 15/03/22, 12:27

Week 9
Weekly Topic and Readings: Qualitative Methods - Triangulation: Integrating Stats and Cases
Week 9 Research Elements Short Paper - Considering Alternate Approaches or Mixed Methods Assignment
R Lab #9 Finalizing your R Script Assignment

Week 10
Presentations

The plan for the Final Week of the term is for every student to provide a little 'show and tell' of your project focused on your main model table and giving us a taste of your research project. The objective is to represent a scientific conference presentation panel on a small scale.

EXAM DAYS: Final Research Paper with Data Analysis Assignment Due the final day of exams