

# **EXPERIMENTAL METHODS IN POLITICAL SCIENCE**

**POSC 39003; Spring 2016  
MW 2-3:20pm, Scharbauer 4022**

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Office Hours: MW 11am-12pm**

## **COURSE OVERVIEW**

There are many different methods of scientific inquiry, and different academic disciplines often specialize in different methods. For example, psychologists are known to use lab experiments, while anthropologists might use field observation or personal interviews. Political science as a discipline is rather multi-methodological in its approach to scientific inquiry. Some of the most common methods used by political scientists include survey research, case studies, and content analysis, to name only a few. Within the past 15-20 years, however, the use of experiments has gained significant traction among political scientists and has been discovered as a useful methodology to answer causal questions that might otherwise elude us.

This class is an introduction to the use of experimental methodology in political science. The course is broken into six different sections: 1) Experimental methods versus other methods of inquiry; 2) Core concepts of experimental methods, including how to design an experiment; 3) exploring the use of experiments to answer question about how identity (including race, gender, and group identification) affects political behavior; 4) developing your own research questions and hypotheses that can be answered using an experimental design; 5) designing and fielding your own experiment; and 6) analyzing the results of your experimental data.

## **COURSE OBJECTIVES**

- Understand how to read and summarize an academic article
- Understand all of the components of an academic research article, and be able to go through the process of writing one.
- Understand the pros and cons of experimental designs, including when, why, and how to use them.
- Understand different types of experimental designs
- Be able to write research questions, derive hypotheses, and develop a research design that accurately tests the hypotheses.
- Be able to design an experiment.
- Be able to analyze experimental data.
- Be able to develop “flash” presentations
- Work well in a group setting

## COURSE REQUIREMENTS

In order to achieve all of the above objectives, this course has a number of rigorous requirements. It is imperative that you keep pace with the syllabus to do well.

**Literature review:** Each student must write a literature review which clearly sets forth each of the hypotheses and uses extant literature to develop/derive the hypotheses and provide the rationale for them. Think of the literature more in terms of “theory development” than a laundry list of articles that have something to do with your topic. You must upload the literature review to Dropbox. Five points will be deducted for each DAY a literature review is late. The literature review is worth 15% of your grade.

**Research Design:** The research design is a written presentation of the experimental design, and includes information on the sample population, each of the variables and their operationalizations, and a detailed description of the experiment. You must upload the research design to Dropbox. Five points will be deducted for each DAY it is late. The research design is worth 15% of your grade.

**Final Paper:** The final research paper will consist of aggregating the revisions from the literature review and research design, as well as integrating the results and discussion. Five points will be deducted for each DAY it is late. The final paper is worth 20% of your grade.

**Experimental Design:** After deciding on the research question and hypotheses, each group member must propose one experiment that specifies:

- Number of factors
- Number of levels for each factor
- Total number of conditions
- The control
- Propose how to operationalize each of the variables

Students may simply use text to describe what they want to do, or they can use pictures, etc., to operationalize the independent variables. These are due by 8am on the due date, and 1 point will be deducted per HOUR it is late. Submit these to Dropbox AND to DocSharing. The experimental design is worth 10% of your grade.

**Participation:** You participation grade is based on six things:

- 1) your timely submission of research questions to Threaded Discussions (by 9am the day they are due)—8 points;
- 2) your timely submission of hypotheses to Dropbox (by 9am the day they are due)—5 points;
- 3) timely upload of three article summaries to DocSharing for your group’s literature review (by 9am the day they are due)—8 points;

- 4) timely upload of two article summaries to DropBox (by 9am the day they are due)—4 points;
- 5) contributing meaningfully to your group’s discussions, not relying on group members, and pulling your own weight—10 points; and

You will lose 1 point for every HOUR that your research questions, hypotheses, and article summaries are uploaded late. Basically, if you turn in all the assignments on time, participate meaningfully to your group, and show up to class, you should be fine. Participation is worth 15% of your grade.

**Group presentations:** There will be a lot of “workshopping” in this class regarding the research questions, hypotheses, and experimental designs. As such, groups will be required to share the results of their workshop sessions with the rest of the class three different times. The first presentation will cover the research question, hypotheses, and literature (2.5%). The second presentation will cover the experimental design (2.5%). The final presentation will present the findings (5%). All group members must participate in all the presentations. The purpose of these presentations is two-fold: a) to be able to put together a “flash” presentation; and b) to practice communicating difficult concepts orally in a clear and understandable manner. The group presentations are worth a combined 10% of your grade.

**Midterm:** There will be a midterm exam that will be worth 15% of your total grade. We will discuss the midterm closer to the date.

### **SUMMARY OF GRADED ITEMS & GRADE DISTRIBUTION**

Literature review: 15%  
Research design: 15%  
Final paper: 20%

Experimental design: 10%  
Group presentations (3): 10%  
Participation: 15%  
Midterm: 15%

You will receive a final grade according to the scale below. If a grade falls at 0.5 between a + or -, the grade will be rounded up. For example, a final grade of 92.5 will become a 93, a final grade of 89.5 will become a 90, etc.

A = 93-100	C+ = 77-79
A- = 90-92	C = 73-76
B+ = 87-89	C- = 70-72
B = 83-86	D+ = 67-69
B- = 80-82	D = 60-66
	F = < 60

## **COURSE READINGS**

All readings are in a course packet that is for sale in the Political Science office. You must pay cash for the course packet.

## **WHAT YOU CAN EXPECT OF ME**

### 1. *Email Communication*

- I will return emails within 24 hours during weekdays.
- Generally, I am unable to reply to emails sent after 5pm or emails sent over the weekend.

### 2. *Grading*

- I will grade papers/assignments/exams within TWO weeks.
- I will keep the gradebook in eCollege up-to-date.
- I will provide you with grading rubrics when applicable

### 3. *Face-to-Face Communication*

- I will be in my office during office hours
- I am always available and happy to meet by appointment, too.

## **“The 3 Rs”: MY EXPECTATIONS OF YOU**

### 1. *Be Resourceful*—

- Search for instructions/definitions online if it's something you can find an answer to yourself.
- Before asking me a logistical question about class, thoroughly read and search the syllabus for an answer. If it's not in there, then ask.

### 2. *Be Respectful*—

- Use proper classroom etiquette
  - Take notes and come prepared
  - DO NOT search the internet, text, or check email during class. I have a zero tolerance policy on this *and will not hesitate to ask you to leave the first time I see it.*
  - Be civil and respectful to classmates
- Use proper email etiquette. You should always start and end emails using proper salutations. Emails should also be written with proper grammar, full sentences, punctuation, etc. Write in proper English, not “textlish.”

### 3. *Be Responsible*—

- Show up, meet deadlines, study hard, engage in class, plan ahead, ask questions, invite challenge.
- If you do all these things, you can do well in this class.

## **ACADEMIC MISCONDUCT**

\*\*Academic Misconduct (Sec. 3.4 from the Student Handbook) –Any act that violates the academic integrity of the institution is considered academic misconduct. The procedures

used to resolve suspected acts of academic misconduct are available in the offices of Academic Deans and the Office of Campus Life. Specific examples include, but are not limited to:

- Cheating: Copying from another student's test paper, laboratory report, other report, or computer files and listings; using, during any academic exercise, material and/or devices not authorized by the person in charge of the test; collaborating with or seeking aid from another student during a test or laboratory without permission; knowingly using, buying, selling, stealing, transporting, or soliciting in its entirety or in part, the contents of a test or other assignment unauthorized for release; substituting for another student or permitting another student to substitute for oneself.
- Plagiarism: The appropriation, theft, purchase or obtaining by any means another's work, and the unacknowledged submission or incorporation of that work as one's own offered for credit. Appropriation includes the quoting or paraphrasing of another's work without giving credit therefore.
- Collusion: The unauthorized collaboration with another in preparing work offered for credit.

### **DISABILITY**

Texas Christian University complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 regarding students with disabilities. Eligible students seeking accommodations should contact the Coordinator of Student Disabilities Services in the Center for Academic Services located in Sadler Hall, 1010. Accommodations are not retroactive, therefore, students should contact the Coordinator as soon as possible in the term for which they are seeking accommodations. Further information can be obtained from the Center for Academic Services, TCU Box 297710, Fort Worth, TX 76129, or at (817) 257-6567.

Adequate time must be allowed to arrange accommodations and accommodations are not retroactive; therefore, students should contact the Coordinator as soon as possible in the academic term for which they are seeking accommodations. *Each eligible student is responsible for presenting relevant, verifiable, professional documentation and/or assessment reports to the Coordinator.* Guidelines for documentation may be found at [http://www.acs.tcu.edu/disability\\_documentation.asp](http://www.acs.tcu.edu/disability_documentation.asp).

Students with emergency medical information or needing special arrangements in case a building must be evacuated should discuss this information with their instructor/professor as soon as possible.

## COURSE SCHEDULE

### I. Introducing Experiments

DATE & TOPIC	READING	ASSIGNMENT
Jan. 11: Introductions	N/A	N/A
Jan. 13: History of experimental methods in political science & review of concepts from Scope & Methods	Morton & Williams, Chapter 1	N/A
Jan. 18: NO CLASS (MLK Day)	N/A	N/A
Jan. 20: Experiments versus other methods of inquiry	Field & Hole, pp. 63-70 Morton & Williams, pp. 31-41; 52-57	N/A
Jan. 25: Different types of experiments	Morton & Williams pp. 41-50	N/A

### II. Core concepts of experimental methods

DATE & TOPIC	READING	ASSIGNMENT
Jan. 27: Terminology: Factors, levels, treatments/conditions	(I could not find ANY reading that was helpful)	N/A
Feb. 1: Random Assignment & the Rubin Causal Model	Druckman, Green, Kuklinski & Lupia, pp. 23-25 Morton & Williams, pp. 84-86	N/A
Feb. 3: Between subjects vs. within-subjects	Field & Hole, pp. 70-88	N/A
Feb. 8: Reliability & Internal/External Validity	Field & Hole, pp. 54-63 McDermott, Rose. "Internal and External Validity," in Druckman, Green, Kuklinski & Lupia (eds.) <i>Cambridge Handbook of Experimental Political Science</i> .	N/A

### III. Experiments on identity & politics

DATE & TOPIC	READING	ASSIGNMENT
<p>Feb. 10: Gender &amp; politics</p>	<p>Dolan, Kathleen &amp; Kira Sanbonmatsu, "Candidate Gender and Experimental Political Science," in Druckman, Green, Kuklinski &amp; Lupia (eds.) <i>Cambridge Handbook of Experimental Political Science</i>.</p> <p>King, David and Richard Matland. 2003. "Sex and the Grand Old Party." <i>American Politics Research</i> 31: 595-612.</p>	<p>1. Based on Dolan &amp; Sanbonmatsu article, submit one research question that interests you on gender &amp; politics using the "Gender &amp; Politics Research Questions" threaded discussion in eCollege. Subject should be your name. In text box, state your research question and the dependent and independent variables.</p> <p>2. Find the King &amp; Matland (2003) article using an online database available via the library website and summarize the article using the "Article Summary Template," which can be found in DocSharing under the category "Templates." Upload your typed summary to Dropbox under "Article Summary 1."</p>
<p>Feb. 15: Race &amp; politics</p>	<p>Chong, Dennis and Jane Junn, "Politics from the Perspective of Minority Populations," in Druckman, Green, Kuklinski &amp; Lupia (eds.) <i>Cambridge Handbook of Experimental Political Science</i>.</p> <p>AND SELECT ONE ARTICLE FROM REFERENCES IN THE ABOVE ARTICLE TO SUMMARIZE.</p>	<p>1. Based on this article, submit one research question that interests you on race/ethnicity &amp; politics using the "Race &amp; Politics Research Questions" threaded discussion in eCollege. Subject should be your name. In text box, state your research question and the dependent and independent variables.</p> <p>2. Find one of the articles mentioned in the review using an online database available via the library website and summarize the article using the "Article Summary Template," which can be found in DocSharing under the category</p>

		“Templates.” Upload your typed summary to Dropbox under “Article Summary 2.”
Feb. 17: Group identification	<p>Davis, Darren. “Racial Identity and Experimental Methodology,” in Druckman, Green, Kuklinski &amp; Lupia (eds.) <i>Cambridge Handbook of Experimental Political Science</i>. (all read)</p> <p>Hutchings, Vincent and Spencer Piston. “The Determinants and Political Consequences of Prejudice,” in Druckman, Green, Kuklinski &amp; Lupia (eds.) <i>Cambridge Handbook of Experimental Political Science</i>.</p>	<p>1. Based on the Davis article, submit one research question that interests you on group identity and politics using the threaded discussion called “Group Identification Research Questions”</p> <p>2. Based on the Hutchings &amp; Piston article, submit one research question that interests you on prejudice using the threaded discussion called “Prejudice Research Questions”</p> <p>3. Complete the “Research Topic Survey” in eCollege under the “Course Home” tab so I can assign you to groups.</p>

#### IV. Research Questions, Hypotheses, and Literature Review

DATE & TOPIC	READING	ASSIGNMENT
Feb. 22:	Midterm Exam	N/A
Feb. 24: Research Questions & Hypotheses	**We will spend class time <i>in groups</i> discussing research question. By the end of class groups should have their research question finalized and begin thinking about hypotheses.	Read the proposed research questions in the threaded discussion submitted by your classmates <b>for your assigned topic</b> .
Feb. 29: Hypotheses	**In class, groups will finalize their hypotheses and begin to fill in the column stating “Reason you hypothesize” for each of the three hypotheses.	Using the “Hypothesis Worksheet” in DocSharing under the category “Templates,” complete the sections that say “Research question,” “Hypothesis 1,” “Hypothesis 2,” and



		“Hypothesis 3” (NOT the tables—just the headings for each of the tables). Upload to Dropbox under “Hypothesis Worksheet.”
Mar. 2: Preparing a literature review	<p>Three articles that you have found that relate to your topic.</p> <p>**In class, groups will use the articles they have collected to fill in the column “Citations for literature that supports this reason” on the Hypothesis Worksheet.</p> <p>**In class, each group will have 5 minutes to present its research question and hypotheses using the “Literature Review Presentation Template” found in the “Template” category of DocSharing. Upload your presentation to DocSharing in the category “Lit Review Presentations.”</p>	Upload THREE article summaries for three different articles that can be used to support any of your hypotheses to DocSharing under your group’s folder.
Mar. 7: Spring Break	NO CLASS	
Mar. 9: Spring Break	NO CLASS	

## V. Research Designs

DATE & TOPIC	READING	ASSIGNMENT
Mar. 14: Design experiment	**Group members discuss proposed experiments and work out a compromised version	Develop ONE experiment that is appropriate to test your hypotheses. Upload to DropBox under “Experimental Design.”
Mar. 16: Critique and vote on experiment	**Groups discuss pre- and post-experiment questions and make final determinations on questions.	Write pre- and post-test questions for the experiment and submit to DropBox under “Pre-Post-Test Questions.”
<b>Mar. 20:</b>	<b>LITERATURE REVIEW DUE BY 11:59PM TO DROPBOX</b>	
Mar. 23: Final	**Groups begin to design	N/A

experiments	experiments using Qualtrics.	
Mar. 28	<p>**Groups will give a 5 minute presentation to the class using Powerpoint. Upload Powerpoint to DocSharing under category labeled "Research Design Presentation."</p> <p>**By end of class ALL groups must have Qualtrics URL ready to field their experiments!!</p>	N/A
<b>April 3</b>	<b>RESEARCH DESIGN DUE BY 11:59PM TO DROPBOX</b>	

## VI. Data Analysis

DATE & TOPIC	READING	ASSIGNMENT
Mar. 30: Using SPSS, changing/generating variables, obtaining descriptive statistics	Field & Hole, Ch. 4 & 5	N/A
Apr. 4: Analysis of Variance	Field & Hole, pp. 191-201	N/A
Apr. 6: Analysis of Variance	Discovering Statistics: Two-Way Independent ANOVA	N/A
Apr. 11-21: Work with data	**In class we will clean our data, generate new variables, conduct analyses	N/A
Apr. 25 & 27: Group presentations	**Presentations in class. Groups upload powerpoint to DocSharing under "Final Presentation."	
<b>May 2</b>	<b>FINAL PAPERS DUE by 11:59pm to Dropbox</b>	