Course overview: This course introduces the fundamentals of research design in political science. We start by examining how political scientists formulate puzzles and questions, and discuss the processes of theorization, concept formation and measurement. We then study how political scientists test claims using qualitative and quantitative methods. Such methods include description, controlled comparisons, and natural, field and survey experiments. We conclude with a discussion of the role of transparency and replications in political science research.

Learning outcomes: Successful students will gain a broad understanding of the political science method as described above. In particular, students will gain an appreciation of the fundamentals of good research design, and the strengths and weaknesses of various qualitative and quantitative research methods.

Course credits: This is a three credit class. The credit standard for this course is met by an expectation of a total of 135 hours of student engagement with the course learning activities, which include class meetings of two hours each week, multiple instructor-student meetings over the course of the semester, reading, data collection, analysis, writing, etc.

Assignments and grading: The class grade will be based on:

- Active, informed class participation, for 20% of the class grade. Participants are expected to have read the assigned works closely, and reflected on them, including possibly by discussing them with their colleagues before class.
- Five short assignments (3-5 pages), for 10% of the class grade each.
  - Assignment 1: Identify a puzzle or question that you find interesting. Hypothesize two to three explanations, drawing on relevant literatures or theories. Due: 10/1
  - Assignment 2: From assignment 1 or from a topic of your choosing, identify your dependent variable. Devise two to four different ways in which this might be measured. What are the possibilities of mis-measurement? How can these be minimized? Due: 10/15
• **Assignment 3:** Critique a research design presented in a paper at a colloquium in your field. What problems you see in the research design and what might be done to fix those problems? Due: Anytime before 12/3

• **Assignment 4:** Locate data for your dependent variable from #2. Also locate data for 4-5 independent variables you think will be important. What kind of sample overlap do you have? Do you have missing data problems? Due: 11/12

• **Assignment 5:** Design an experiment (survey, natural, field) to help answer the puzzle you identified in the previous assignments. Assume you have the power of fiat in making your experiment happen. Be sure to identify the exact nature of the treatment. What are possible confounding factors? Due: 12/3

• A term paper, for 30% of the class grade. The paper should pose a clear research question, possibly from previous course assignments, synthesize the relevant literature, and outline a theory and at least two falsifiable hypotheses. In the bulk of the paper, students should develop a tractable research design (including a data collection and analysis plan) that would allow for theory testing. Ideally, students would pursue this project in subsequent classes, resulting in a published paper. Students should discuss their topics with me once by week 6, and a second time by week 11. Papers are due on Canvas one week after the last class, on 12/17.

**Rules, Rights & Responsibilities:** See [http://guide.wisc.edu/graduate/](http://guide.wisc.edu/graduate/)

**Academic integrity:** By enrolling in this course, each student assumes the responsibilities of an active participant in UW-Madison’s community of scholars in which everyone’s academic work and behavior are held to the highest academic integrity standards. Academic misconduct compromises the integrity of the university. Cheating, fabrication, plagiarism, unauthorized collaboration, and helping others commit these acts are examples of academic misconduct, which can result in disciplinary action. This includes but is not limited to failure on the assignment/course, disciplinary probation, or suspension. Substantial or repeated cases of misconduct will be forwarded to the Office of Student Conduct & Community Standards for additional review. For more information, refer to studentconduct.wiscweb.wisc.edu/academic-integrity/.

**Accommodations for students with disabilities:** The University of Wisconsin-Madison supports the right of all enrolled students to a full and equal educational opportunity. The Americans with Disabilities Act (ADA), Wisconsin State Statute (36.12), and UW-Madison policy (Faculty Document 1071) require that students with disabilities be reasonably accommodated in instruction and campus life. Reasonable accommodations for students with disabilities is a shared faculty and student responsibility. Students are expected to inform me of their need for instructional accommodations by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized. I will work either directly with you or in coordination with the McBurney Center (at 1305 Linden Drive and 608.263.2741; see [www.mcburney.wisc.edu](http://www.mcburney.wisc.edu)) to identify and provide reasonable instructional accommodations. Disability information, including instructional accommodations as part of a student's educational record, is confidential and protected under FERPA.
Diversity and inclusion: Diversity is a source of strength, creativity, and innovation for UW-Madison. We value the contributions of each person and respect the profound ways their identity, culture, background, experience, status, abilities, and opinion enrich the university community. We commit ourselves to the pursuit of excellence in teaching, research, outreach, and diversity as inextricably linked goals. The University of Wisconsin-Madison fulfills its public mission by creating a welcoming and inclusive community for people from every background – people who as students, faculty, and staff serve Wisconsin and the world.

A detailed class plan—subject to revision—follows.

Class 1 (9/10): Introduction

Class 2 (9/17): Puzzles and Questions
King, Keohane and Verba, Chapters 1, 2.
Gerring, Chapters 1, 2.
Collier and Brady, Chapters 1, 5.

Class 3 (9/24): Theories, Models, Hypotheses
Gerring, Chapters 3, 6, 8.
Collier and Brady, Chapter 11.

Class 4 (10/1): Concepts
Gerring, Chapter 5.
Class 5 (10/8): Measurement
Gerring, Chapter 7.
King, Keohane and Verba, pages 150-68.

Class 6 (10/15): Data Collection and Description

Class 7 (10/22): Case Selection, Case Methods, Sampling and Generalization
Brady and Collier, Chapters 6, 10 and 11.

Class 8 (10/29): Participant Observation and Interviews

Class 9 (11/5): Regression, Fixed Effects, Difference-in-Difference, Matching

Class 10 (11/12): Instrumental Variables and Regression Discontinuity Estimators

Class 11 (11/19): Natural Experiments

Class 12 (11/26): Laboratory and Field Experiments

**Class 13 (12/3): Surveys and Survey Experiments**


**Class 14 (12/10): Replication and Transparency in Research**


**Final papers due on Canvas, 12/17**