PS 12 Introduction to Political Science, Spring 2024
Prof. Alexander V. Hirsch (avhirsch@caltech.edu), Baxter 102
Office Hours – Tuesdays 1-3

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This class is designed to introduce you to the modern study of political science. There are many things that this class will not be. It will not be a game theory class; although we will acquire and apply some of these tools. It will not be a statistics or econometrics class; although we will think carefully about how we draw inferences from data. It will not be a philosophy of science class; although we will consider the role of models in theorizing about political phenomena, and the practical exercise of bridging abstract theory and real-world data. And it will not be a civics class; I will make no attempt to teach you about the complex rules and procedures governing all possible political systems, although we will pick up some along the way.

This class will instead be a little bit of all of the preceding. In each week, we will start by introducing and developing a fundamental tool used by quantitative social scientists. We will then apply the tool to an important substantive question examined by political scientists. Once this class is over, it matters less to me that you have retained any particular analytic tool or intellectual debate, and more that have retained an understanding of and appreciation for how to approach the study of politics "as a science," and some of the challenges that make the discipline distinct from the "hard" sciences.

FORMAT: Class will be a mixture of lecture (on "analytic tool" days) and interactive lecture/guided discussion. We are fortunate to have two excellent TAs who will host weekly recitations where course material can be reviewed, clarified, and discussed.

READINGS
The course readings will consist of a mixture of book chapters and academic journal articles. All of the material in assigned book chapters should be read and studied closely; all of the mathematical tools contained therein should be accessible to you. The academic journal articles will often be more interesting, and they will often form the basis for discussion, but they may use mathematical techniques you are not familiar with and/or look difficult. It's not necessary or expected that you get bogged down in the details of these analyses (which often leave much to be desired anyway) to get the gist of the authors' argument and conclusions. But you may want to if you are interested in pursuing political science further.

The most updated information for the schedule and location of each reading will be the weekly modules in Canvas. If you find material of interest that is connected to the course content (a useful additional source, a popular press article that is thematically related, etc.) I **strongly** encourage you to share it with me and the rest of the class. Having access to the following reference books will be particularly helpful:
- *Analyzing Politics*: *Rationality, Behavior, and Institutions*, 2nd Edition, Kenneth A. Shepsle
- *Political Game Theory*, Nolan McCarty and Adam Meirowitz

RUBRIC: Grades will be determined as follows.

            Participation & Exercises - 30%
            Midterm - 35%
            Final - 35%

Participation

Attendance and in-class participation are **mandatory**; it is the easiest way to learn the course material (which is scattered across many readings, much of it dense), and all your classmates benefit from hearing your questions and input. On "analytic tool" days it is ideal, but probably not necessary, that you have reviewed the relevant readings to get your bearings. On "interactive lecture/guided discussion" days, **it is essential that you do the reading beforehand** so that you can productively participate. I reserve the right to ban the use of laptops and smartphones if they appear to be an excessive distraction; you may very well learn more by writing down notes with pen and paper (even if you can't read your own handwriting later) than mindlessly typing everything that's said at 100 WPM.

To put the consequences of poor participation in perspective for your grade, an F in participation and a B on the exams (the upper bound of what I have observed after very poor participation in my previous teaching at Caltech) will net you a C- in the class. This is likely a best case, as students who infrequently attend class rarely beat a B-/C+ on the exams even with extensive cramming.

Exercises:

There will be several take home exercises distributed throughout the quarter (expect 4-6); they will be graded on a 4 point scale of H/P/L/F. I strongly suggest that you make a serious effort on these, as they are representative of what you can expect on the exams. That being said, **your target grade should be is a P**. H is an option reserved to recognize unusually exceptional work (which I am not asking for nor recommending on the problem sets), and L is an option reserved to recognize basically no effort despite a formal submission.

You may work together on these exercises but must submit your own work. Problem sets must be submitted on time; **the formal definition of "on time" is submitted via Canvas before the start of class on the due date.** Late submissions within 24 hours of the original due date/time will be docked the equivalent of a full letter grade. Exercises submitted more than 24 hours late will receive a zero. When appropriate solutions will be distributed in Canvas.

Exams

A third to a half of the content of the midterm and final will be formal mathematical problems. The remainder will ask you to respond in essay and short answer format and test the analytical and substantive knowledge you have acquired in the course.

The midterm will be a 1.5-hour in class exam during the midterm period. The final will be a 24-hour take home exam during finals period. The exam policies are as follows, any violation of which will be considered a Caltech Honor Code violation.

- Exams are closed book, closed note, closed internet, and (especially) closed ChatGPT. (For specialized questions this tool tends to spit out nonsense prose that sounds plausible to non-specialists, and its use is typically easy to detect. Avoiding this temptation will save us all the trouble of dealing with disciplinary procedures).

- You may not discuss the exam, or course more generally, with anyone from the moment the exam window opens up to download, until the moment the window closes and all exams are submitted. These guidelines will be included at the beginning of all exams.
- "Discussion" is interpreted broadly to include the sharing of any course material, including lecture notes, reading notes, or problem sets; **even if these materials are unaltered from their original form and do not reflect any knowledge of the exam contents.**

SOME UNSOLICITED ADVICE

Many of you likely don't want to be here (at least very much), and I understand and appreciate that. Nevertheless, it is my professional responsibility to do my best to help you get something useful out of this class. To that end, my advice is focused on helping you maximize the **quality** of the time you devote to this class so that you may minimize the **quantity** of time that you devote.

When reviewing course material on your own, put away phones and other such digital distractions – if you are reading/writing on a device, use apps to reduce or eliminate connectivity (if you must). Sit at a desk. Time smallish-focused intervals of concentrated work (if you must). Distraction is the enemy of deep thinking and learning (especially on topics not near and dear to your heart), and couches are the enemy of alertness.

The course material varies a lot in tone and content, but attention will be rewarded with deeper understanding regardless. Some of the material is accessible and breezily written – paying close attention will ensure that you do not miss the depth and subtlety of the underlying concepts. Other material (older works, and/or those for an academic audience) often have turgid prose and are steeped in jargon – attention ensures you do not miss the essential points buried under all that distraction and superfluous math or just fall asleep (if I have assigned it, it is because I believe they are there). Finally (but this you surely already know as Caltech students), technical material cannot really be learned without a pencil and paper in hand where you can practice as you go along **(this advice applies particularly to textbook readings; I do not expect you to fully absorb/digest the mathematical material in any academic papers that are assigned)**.

WELLNESS POLICY

- Taking care of your health and well-being should be your number one priority. You cannot learn if you are unwell or under extreme duress.
- I am available to chat, and you can always attend office hours for a non-academic conversation if necessary. You can also visit the counseling center or talk to a Dean if you need additional help.
- Diversity, inclusion, and belonging are all core values of this course, of Caltech, and of all higher education institutions. All participants in an academic learning environment must be treated with respect by others in accordance with the honor code. If you feel unwelcome or unsafe in any way, I encourage you to talk to me or one of the Deans.

ACCOMMODATIONS

If you would like to ask about flexibility with coursework for a temporary or minor wellness issue, please contact the TAs; they will consult with you about the options and in turn consult with me if necessary. The Deans' Office, Student Wellness Services (SWS) and Caltech Accessibility Services for Students (CASS) are available to help you with illness and health conditions that may impact your coursework.

- [Student Wellness Services](#) will assess and treat illnesses and medical conditions and communicate (with student's permission) with the Deans' Office if needed. CASS, part of SWS, can recommend and provide for accommodations needed due to temporary or long-term disabilities. Policies about academic extensions for medical reasons can be found [here](#).
- [The Deans' Office](#) may recommend academic exceptions in cases of significant family or personal emergencies, or moderate to severe illness or medical conditions that make it difficult to keep up with coursework. Please reach out to a dean as soon as possible if you experience these conditions.

STUDENTS WITH DOCUMENTED DISABILITIES

Students who may need an academic accommodation based on the impact of a disability must initiate the request with Caltech Accessibility Services for Students (CASS). Professional staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty dated in the current quarter in which the request is being made. Students should contact CASS as soon as possible, since timely notice is needed to coordinate accommodations. For more information: https://cass.caltech.edu/, cass@caltech.edu. If you are having difficulties with access or other challenges in the class you think might be related to a disability, but do not yet have a diagnosis, please feel free to reach out to CASS to learn more about resources.

MY STATUS AS A "RESPONSIBLE EMPLOYEE"

As a faculty member, I am required to notify the Institute's Equity and Title IX Office when I become aware of discrimination, sexual harassment, or sex- or gender-based misconduct involving our community members. If a student shares such an experience with me, I can help connect them to support resources but will not be able to keep that information confidential as part of fulfilling my responsibility to make sure my students are offered the opportunity to access information and support by the Institute. For more information, you can email equity@caltech.edu, go to equity.caltech.edu, or review the Institute's [Sex- and Gender-Based Misconduct Policy](#). If you have experienced such prohibited conduct and want to report it or speak to a confidential resource, consult the [Equity and Title IX Office's webpage on reporting](#) for guidance.

Topic 1: Political Science "as a science," Foundations of Rational Choice

Shepsle, *Analyzing Politics*, Chapters 1-2
Bueno de Mesquita, *Political Economy for Public Policy*, pp. 5-9 ("The role of models" and "Why rationality")
Riker, William H. 1977. "The Future of a Science of Politics." American Behavioral Scientist 21: 11-38.
McCarty and Meirowitz, Political Game Theory, Chapter 2 – Intro, Sections 1 and 3

Optional
Clarke, Kevin A. and David Primo. "A Model Discipline." Ch. 1
King, Keohane, and Verba. *Designing Social Inquiry*, Chapter 1.2.2. "Improving Theory" (pp. 19-23)
Kramer, Gerald H. 1986. Political Science as Science. In Political Science: The Science of Politics, ed. Herbert Weisberg. New York: Agathon Press

Exercise 1: Due Thursday April 11. <u>Bring a copy to class for discussion</u>.

Topic 2: "von Neumann–Morgenstern" Rational Choice Under Uncertainty

Foundations
Green and Shapiro, *Pathologies of Rational Choice Theory*, Ch. 2 "The Nature of Rational Choice Theory"
Bueno de Mesquita, *Political Economy for Public Policy*, pp. 338-342 (Expected utility theory)
McCarty and Meirowitz, Political Game Theory, Chapter 2; Intro, Sections 1 and 4

Application – **United States legislators and the (re)election motive**
Mayhew, *Congress: The Electoral Connection*, pp 1-77

Exercise 2: Due Thursday April 18.

Topic 3 – Rational Learning and Bayesian Updating

Foundations
McCarty and Meirowitz, Political Game Theory, Chapter 2; Section 3

Application – **Do Voters Learn Rationally?**
Gerber, Alan and Donald Green. 1999. "Misperceptions about Perceptual Bias." *Annual Review of Political Science* 199(2): 189-210
Bartels, Larry M. 2002. "Beyond the Running Tally: Partisan Bias in Political Perceptions." *Political Behavior* 24(2): 117-150.
Bullock, John G. 2009. "Partisan Bias and the Bayesian Ideal in the Study of Public Opinion." *Journal of Politics* 71 (3): 1109-1124.

Exercise 3: Due Tuesday April 30.

Topic 4 - The Problem of Inference, Bridging Theory and Data

Foundations
Bueno de Mesquita and Fowler, *Thinking Clearly with Data*, Chapters 1-3
Ashworth, Berry, and Bueno de Mesquita, *Theory and Credibility*, Ch. 1 "Introduction"

Application – **Campaign effects in US Elections**
Jacobson, "How Do Campaigns Matter?" *ARPS* 2015.
Schuster, "Does Campaign Spending Affect Election Outcomes?" *Journal of politics* 2020.
Sides, Vavreck, and Warshaw. "The Effect of Television Advertising in United States Elections" *APSR* 2021

Exercise 4: Due Tuesday May 7.

MIDTERM – Tuesday May 7

Topic 5 – Collective Preferences and the Spatial Model

Bueno de Mesquita, *Political Economy for Public Policy*, Ch. 2 ("Collective Goals")
Shepsle, *Analyzing Politics*, Chapters 3-4
Shepsle, *Analyzing Politics,* Chapter 5 through page 110 (spatial model)
McCarty and Meirowitz, Political Game Theory, Chapter 4

Exercise 5: Due Thursday May 23.

Topic 6 – Normal Form Games and Downsian Elections

Foundations
Bueno de Mesquita, *Political Economy for Public Policy*, Appendix A.2-A.8 ("Games in Strategic Form")
McCarty and Meirowitz, Political Game Theory, Chapter 5, pp. 87-107

Application – **Elite Polarization in the United States**
McCarty, *Polarization*: *What Everyone Needs to Know*. Chapters 1-3. (Appendix A optional).
Hall and Fowler 2016. "The Elusive Quest for Convergence." *Quarterly Journal of Political Science* 11:131-49.
    (focus on Section 3, "What Explains Divergence").
Hall, 2019. *Who Wants to Run*. Chapter 1

Exercise 6: Due Tuesday June 4.

Topic 7 – Mixed Strategy Nash and the "Protest Game"

Foundations
McCarty and Meirowitz, Political Game Theory, Chapter 5, pp. 107-117
McCarty and Meirowitz, Political Game Theory, Chapter 5, pp. 140-145
Austen-Smith and Banks, Vol. 2, Ch. 7.9. The Rational Turnout Model

Application **– The Calculus of Voting**
Shepsle, *Analyzing Politics,* Chapter 9 "Collective Action"
Green and Shapiro, *Pathologies of Rational Choice Theory*, Ch. 4 "The Paradox of Voter Turnout"
Smets and van Ham 2013. "The embarrassment of riches? A meta-analysis of individual-level research on voter turnout." *Electoral Studies* 32: 344-357.
Levine and Palfrey 2007. "The Paradox of Voter Participation? A Laboratory Study." *American Political Science Review* 101 (1): 143-158

Exercise 7: Due Tuesday June 11.

FINAL – Thursday June 13