

# PE I: Formal Models of Domestic Politics

## Public Policy / Political Science 40102

### Winter 2021

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**Class time and location:** Monday/Wednesday, 9:10–10:30, Zoom

**Office hours:** Gehlbach: Friday 9:00–11:00, sign-up [here](#); Kim: TBA

## Course description

This course presents an overview of formal models of domestic politics. The material, in other words, covers theories of politics within, rather than between, countries—those theories having been formalized as game-theoretic models. Some students will take the course intending to use formal theory in their own work. Others will anticipate a more empirical orientation, albeit one that is informed by foundational theories of domestic politics. The course speaks to both audiences.

The material assumes a basic understanding of game theory and differential and integral calculus. Harris Ph.D. students will have satisfied these prerequisites through their coursework in the fall quarter. Political Science Ph.D. students will have satisfied these prerequisites if they a) have taken Mathematical Foundations of Political Methodology and Game Theory I, and b) have taken or are currently enrolled in Game Theory II. Others will have satisfied these prerequisites through coursework in the Economics Department or prior to coming to campus. Please let us know if you have any questions about your preparation.

## How to see through the mathematics to the politics

For those still learning the language, it can be challenging to extract the substance from a formal model. We want you to understand the politics behind the math, which means mastering each of the models we discuss. Here is the time-honored formula for doing so:

1. First exposure. Come to class and do the reading.
2. Problem set, take 1. We will assign weekly problem sets, due the following week. You should take a first crack at the problem set after Wednesday's class and before...
3. Office hours. In our experience, some of the best learning takes place in office hours. Even if you don't have questions, you should attend to take advantage of the questions that others have. We will try to find a time when we can meet as a group.
4. Problem set, take 2. Finish the problem set after you come to office hours. You should post your solutions on Canvas by the following Monday at 9:00.

## Written assignment

In addition to problem sets and exams, we ask that you complete one written assignment for this course. For this assignment, which is due **Friday, February 26**, please discuss a model that is in the textbook. How does the version of the model in the textbook differ from that in the original research paper? What, if anything, is lost in the typically simpler textbook presentation? The assignment should not exceed 3 pages, single-spaced. We expect your essay to be written in clear prose and to be free of grammatical and punctuation errors.

## L<sup>A</sup>T<sub>E</sub>X

Anybody who plans to use formal theory as a research tool should be familiar with L<sup>A</sup>T<sub>E</sub>X, an open-source document-preparation system widely used for technical writing. We want you to learn it now. Beginning with the second problem set, we expect all solutions to be written in L<sup>A</sup>T<sub>E</sub>X. You may find the following books useful:

- George Grätzer, *First Steps in L<sup>A</sup>T<sub>E</sub>X*.
- Helmut Kopka and Patrick W. Daly, *Guide to L<sup>A</sup>T<sub>E</sub>X: Fourth Edition*.

## Cooperation

Most of you will find this course easier if you cooperate with your classmates. Problem sets especially lend themselves to collaboration. A particularly good strategy is to begin work on a problem set yourself, and then to meet with one or more classmates to hash out any remaining issues. The final writeup should be your own. Students who are not native English speakers may also find it useful to consult on written assignments with those who are.

## Grading

The final grade will be based on the following weighting of course requirements:

- 15 percent: problem sets
- 15 percent: written assignment
- 30 percent: midterm exam
- 40 percent: final exam

Grading of problem sets will be “coarse,” that is, we will primarily give checks, with the occasional check-minus to signal the need to buckle down. You should understand that seeking out solutions to problems will do little to improve your problem-set grade (which in any event is worth only 15 percent of the total), but will do much to keep you from knowing the material well enough to receive a good grade on the exams.

## Reading

We will use a draft of the second edition of Gehlbach, *Formal Models of Domestic Politics*, Cambridge University Press. There is no need to purchase the first edition.

## Schedule

We will cover most of the following topics this semester, which correspond to the nine chapters in the second edition of the textbook:

- Electoral competition under certainty
- Electoral competition under uncertainty
- Special interest politics
- Veto players
- Delegation
- Coalitions
- Political agency
- Nondemocracy
- Regime change

The sequencing of material will generally follow this outline, with the allocation of time across chapters to be determined. The midterm exam will be held during our regularly scheduled class time **Wednesday, February 10**. The date and time of the final exam is TBD.

## Special accommodations

The University of Chicago, and we personally, support the right of all enrolled students to a full and equal educational opportunity. The University's policies regarding students with disabilities are available [here](#). If you have a disability accommodation awarded by the University Student Disability Services Office, you should inform the Harris Dean of Students Office by the end of the first week of class. The Harris Dean of Students Office will work with you and with us to coordinate your accommodations.

## Diversity and inclusion

We learn from each other. A diverse classroom encourages us to see the world from new perspectives. To take full advantage of this resource, we must maintain an environment of open inquiry in which all are able to participate. It is our commitment as instructors to foster this environment.

You can find the University's statement on civil behavior in a university setting [here](#), and the Harris School's statement on diversity and inclusion [here](#).

## Support

The pandemic and move to online learning pose numerous challenges. If you are feeling overwhelmed and/or depressed, you are not alone. We urge you to attend to your mental health. All services of the Student Counseling Service (SCS) are fully covered by the Student Life Fee. If you are seeking new services or resources, please call 773-702-9800 during business hours (Monday—Friday, 8:30 am–5:00 pm) and ask to speak with a clinician. If you need urgent mental-health care, you can speak with a clinician 24/7 by calling the SCS at 773-702-3625. More information is available [here](#).

Beyond SCS, the University provides numerous other forms of support for online learning. Please peruse the available options [here](#).

## Academic integrity

You are a student at the University of Chicago. As such, you have assumed responsibility to uphold the highest standards of academic integrity and honesty. Among other things, this means that you will not represent another's work as your own or otherwise gain unfair academic advantage. We will report any plagiarism, cheating, or other form of academic dishonesty to the dean of students. We reserve the right to impose sanctions beyond those imposed by the dean, including a grade of zero on the assignment in question; this could result in a failing grade for the course.

## Use of online resources

Online resources are for course use only. More concretely, by enrolling in this course, you acknowledge that:

- You will not (i) record, share, or disseminate University of Chicago course sessions, videos, transcripts, audio, or chats; (ii) retain such materials after the end of the course; or (iii) use such materials for any purpose other than in connection with participation in the course.
- You will not share links to University of Chicago course sessions with any persons not authorized to be in the course session. Sharing course materials with persons authorized to be in the relevant course is permitted. Syllabi, handouts, slides, and other documents may be shared at the discretion of the instructor.
- Course recordings, content, and materials may be covered by copyrights held by the University, the instructor, or third parties. Any unauthorized use of such recordings or course materials may violate such copyrights.
- Any violation of this policy will be referred to your dean of students.