Instructor: Scott Gehlbach, gehlbach@polisci.wisc.edu
Time and location: Thursday 1:20–3:15, 422 North Hall
Office hours: Tuesday 1:00–2:00 (for this class)

Overview
This course presents an overview of formal models of domestic politics. It builds directly on the material covered in PS 835, which provides the tools used in applied modeling. The course should be of interest to political scientists in various subfields, including comparative politics and American politics, as well as to social scientists from other disciplines with an interest in politics. More generally, the material should be useful to any students who want practice in modeling, whatever their substantive interests.

Students who have not taken PS 835 should have a background in game theory equivalent to what that course offers. In addition, it is important to be familiar at the start of the semester with the basics of differential and integral calculus.

How to see through the mathematics to the politics
For those still learning the language, it can be hard to extract the substance from a formal model. I 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. I will assign weekly problem sets based on that week’s lecture, due the following week. You should take a first crack at the problem set after class and before.

3. Office hours. In my experience as a graduate student and an instructor, some of the best learning takes place in office hours. Even if you don’t have questions, you should come by to take advantage of the questions that others have. We will try to find a time that works for everybody.

4. Problem set, take 2. Finish the problem set after you come to office hours.

Reading
We will be using my textbook, Formal Models of Domestic Politics, published in 2013 with Cambridge University Press. I am currently working on a second edition, from which I will periodically provide additional material.
Written assignment

In addition to problem sets and exams, I ask that you complete one written assignment for this course. For this assignment, which is due October 11, please discuss a model that is not in the textbook but should be. Why does this model belong in the text? How might it be simplified for textbook presentation? The assignment should not exceed 3 pages, single-spaced. I expect your essay to be written in clear prose and to be free of grammatical and punctuation errors.

\LaTeX

Anybody who plans to use formal theory as a research tool will want to be familiar with \LaTeX, an open-source document-preparation system widely used for technical writing. I want you to learn it now. By September 20 (i.e., when you turn in the second problem set), I expect all problem sets to be written in \LaTeX. If you are unfamiliar with \LaTeX, you will want to attend our annual department \LaTeX workshop, to be held the second week of class. In addition, you may find the following books useful:

- George Grätzer, *First Steps in \LaTeX*.

The second book is a standard reference text that you will want to own if you do any work in \LaTeX after this course.

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.

Special accommodations

The University of Wisconsin–Madison, and I personally, support 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. Please inform me by the end of the third week of the semester, or as soon as possible after a disability has been incurred or recognized, if you need instructional accommodations. I will work either directly with you or in coordination with the McBurney Center 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.
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, I will give primarily checks, with the occasional check-minus to signal the need to buckle down. Many exercises will have previously been used in prior problem sets or on exams. 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.

Schedule

We will cover most of the following topics this semester, which correspond to the eight chapters in the first edition of the textbook and a new chapter intended for the second:

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

The sequencing of material will generally follow this outline, with the allocation of time across chapters to be determined.

The date and time of the midterm and final exams will be set in coordination with your schedules.

Course credits and learning outcomes.

This is a three-credit course, which implies a total of 135 hours of student engagement with learning activities. You will spend this time in class, doing weekly problem sets, preparing for exams, and completing your written assignment. As discussed above, giving yourself heart and soul to the problem sets is a key to success in this course. (If anybody outside of class is reading this syllabus, this is an “Option C” course.)

Over the course of the semester, you will

1. Solve numerous models of domestic politics using appropriate methods.
2. Demonstrate an understanding of various modeling approaches in the study of domestic politics.
3. Apply new mathematical tools to the analysis of games.