The course covers models of elections and legislative bargaining, with a special focus on the fundamental connections between the two modeling applications. The common theme is a canonical framework in formal models of politics: optimal choice of policy, subject to approval by a voting body. In elections, this is a candidate’s choice of electoral platform, which is then voted on by the electorate; in bargaining, this is the choice of a policy proposal, which is then voted on by members of a committee or legislature. We begin with background in social choice theory, which is used in the later game-theoretic analyses. We then examine the canonical model as applied to static elections, dynamic bargaining, bargaining with an endogenous status quo, political accountability, infinitely repeated elections, and lobbying. (Not all topics will be covered in detail; topic selection depends on time and interest.) The course will consist of a mix of lectures, discussion, student presentations, and a final exam.

Below is a list of topics that may be covered. In each section, lectures will be based on underlined readings; these are notes and surveys that will be distributed to class participants. Following those, I give a selection of readings from which student presentations can be chosen.

1 Mathematical Background

Some of the analysis will require relatively advanced mathematics, but background will be provided as needed. Section 1 of “Notes on Spatial Bargaining” contains an overview of metric spaces, measure and integration, and correspondences; a more extensive review is presented in my “Basic Concepts” notes.

- J. Duggan (2014) “Notes on Spatial Bargaining and Stochastic Games,” Section 1
2 Social Choice Theory

We cover basics of relations, preference, and choice. We then move to preference aggregation, with a focus on simple voting rules, and we review impossibility theorems of Arrow, Gibbard, and Nakamura. The majority top cycle and uncovered set are defined. Possibility results for value restriction will be proven and applied to models with single-peaked preferences and to voting over lotteries. We also survey results on majority cycling in the multidimensional spatial model.


3 Downsian Elections

We cover Downsian models of elections under different assumptions on the objectives and information of the candidates, and we find a strong connection between pure strategy equilibria and the majority core. We focus particularly on existence of equilibrium outcomes, which sometimes requires attention to mixed strategy equilibria. Applications include determination of taxes and the role of campaigns.


4 Dynamic Bargaining

We consider the problem of an agenda setter who can make a take it or leave it offer to a set of legislators with a fixed status quo; we extend the basic model to an infinite-horizon game in which bargaining continues after rejection. A particular interest is in existence of equilibrium in stationary strategies, and we again find connections between equilibrium predictions and the core.

• J. Duggan (2014) “Notes on Spatial Bargaining and Stochastic Games” (Sections 2 and 3)
5 Political Accountability

We examine the basic two-period model of elections when incomplete information is present. An optimal choice for the politician must trade off current utility for increased probability of re-election, leading to possibilities for shirking or responsiveness. Non-convexities in payoffs may necessitate the need for mixed strategies, and in the basic model, increased benefits of office lead to greater responsiveness. Incentives to pander may, however, lead to political inefficiency.
6 Models of Lobbying

Lobbying can take the form of information transmission or the exchange of policy concessions for valuable resources, i.e., quid pro quo. We focus on the latter form, where interest groups can affect politicians’ incentives, moving policy choices or votes in the direction of their preference.


7 Bargaining with Endogenous Status Quo

We return to the topic of bargaining, now with the addition of an endogenously evolving state variable. This complicates the strategic calculations of politicians (or other agents), and it raises difficulties for existence and characterization of equilibria. Aside from a small amount of work at the general level, much applied work takes a constructive approach to the analysis of a particular equilibrium selection.

8 Infinite-horizon Accountability Models

The last topic is models of infinitely repeated elections with incomplete information. We focus on existence of equilibria that are stationary, in an appropriate sense, and the incentives of politicians to respond, in equilibrium, to the preferences of voters.


