Description

Institutions are the rules by which societies govern themselves. In this course, the tools of economic theory, game theory, and social-choice theory will be applied to the rational-choice analysis of political, economic, and social institutions, whose consequences for society will be derived from assumptions about what individuals seek to maximize.

The product of such analysis, which is reflected in the title of this course, is normative: To design institutions that meet certain “engineering” specifications and, therefore, may be superior to institutions that, because they arose more haphazardly, may not satisfy these specifications. Like engineering in the natural sciences, which translates theory (e.g., from physics) into practical design (e.g., a bridge), engineering in the social sciences translates rational-choice analysis into the design of better political-economic-social institutions.

Examples of Institutions

Among the institutions that will be studied are the following:

1. *Fair-Division Procedures*. Various algorithms for dividing up goods, or determining who wins on what issues in a dispute, have been proposed that satisfy such fairness criteria as “envy-freeness” (everybody gets what he or she considers is a largest portion and hence does not envy anybody else). These include different cake-cutting procedures, divide-and-choose (one party divides a set of items into two portions, and the other part chooses one portion), and strict alternation (different parties take turns choosing items). New procedures, such as “balanced alternation” and “adjusted winner,” are discussed and applied to both hypothetical and real-life situations.

2. *Bargaining and Arbitration Procedures*. While bargaining is often an informal give-and-take process, specific procedures are increasingly invoked, such as in labor-management negotiations, divorce proceedings, and environmental disputes. In arbitration, structured procedures like “final-offer arbitration”—in which two sides can each make only one final offer, and the arbitrator must choose one or the other (not split the difference)—have become quite common. Auctions, as an alternative to negotiations, are also widely used (e.g., via the internet).
3. **Voting Procedures and Election Systems.** Periodic elections are the cornerstone of democracy, with a host of voting procedures used to conduct elections. Some of the best-known systems include plurality voting (with or without a runoff), approval voting, the Borda count, and the Hare system of single transferable vote (“instant runoff”). In the United States, the Electoral College, especially its winner-take-all feature in states, and sequential presidential primaries have had major effects on the outcomes of presidential elections.

**Conflicting Criteria**

A variety of criteria are used to assess institutions. For example, the egalitarian principle of “one person, one vote” is often applied to voting systems. But its validity in certain contexts is questionable. For example, is it fair that large countries, in institutions like the UN, have only one vote in the General Assembly? Doesn’t fairness demand that such countries have voting power tied to their contributions, or their influence on the world stage (e.g., by having a veto, which five countries on the Security Council do, or additional votes)? Thus, a principle of fairness in public elections may be inappropriate in bodies, like the UN, with actors of different size.

The problem of comparing institutions is a difficult one. Consider, as a case in point, the relative merits of the Electoral College—the formal institution for electing a president prescribed by the U.S. Constitution—and a frequently proposed election reform, direct popular-vote election of the president. Since the Constitution was ratified more than 200 years ago, attempts have been made to enact a constitutional amendment that would mandate direct popular-vote election of the president.

But if there is a popular-vote election, should there be a 40% or 50% threshold that a candidate must obtain in order to be elected, with a runoff held if nobody attains this threshold? Or should a different system of voting be used, such as approval voting, which would allow voters to vote for more than one candidate in multicandidate elections?

Informed answers to these questions require that we set forth criteria—the specifications of the engineer—for evaluating institutions. In this course, we will invoke such criteria as efficiency, equitability, freedom from certain paradoxes, etc. Particular emphasis will be placed on making institutions as invulnerable as possible to manipulation, which will be subjected to theoretical analysis and illustrated through a series of case studies.

Because one cannot in general guarantee all the good things that one might desire (called the “desiderata”), trade-offs are inevitable. Consequently, a major purpose of this course will be to analyze, theoretically, some of these trade-offs, showing which institutions satisfy what set of desiderata. But just as significant as this theoretical analysis will be more applied analysis, demonstrating the relevance of the theory to real-world institutions.
Requirements of the Course

Five books, all in paperback except one (How to Change the World), are required for the course. There will be week-to-week assignments of readings in the main theoretical work (Public Choice III), which will be supplemented by more substantive readings in the four other books. How to Change the World is about social entrepreneurs, whereas The Art of Political Manipulation is about political entrepreneurs; what is common to both kinds of entrepreneurs is that they try to manipulate the system to their advantage and, in the process, sometimes succeed in reforming its institutions. Real Democracy is about an existing institution—New England town meetings—and how they enable citizens to express their views democratically and, on occasion, implement change. Finally, The Win-Win Solution is about procedures for settling disputes, at all levels, and discusses how they can and do ameliorate conflict.

In addition to the required readings, further readings will be introduced in class as well as recommended throughout the course for those interested in pursuing particular topics in greater depth. No mathematical training beyond high school mathematics is assumed in the course; however, much of the reading is quite analytic and will require sustained reflection to absorb and understand.

The main written requirements of the course are a midterm examination, a final examination, and a short paper (up to 8 pages) on a topic chosen in consultation with the instructor. Each of the three written requirements will count approximately 25% towards the final grade; the remaining 25% will be based on homework and class attendance/participation.

Required Books


Assignments Due

Jan. 19: Preface/Acknowledgments to all five books.
Jan. 24 & 26:  

Jan. 31 & Feb. 2:  

Feb. 7 & 9:  

Feb. 14 & 16:  
**PC**, pp. 128-133, 136-158; **PM**, pp. 103-152.

Feb. 21:  
**PC**, pp. 159-206 (skip technical parts)

Feb. 28 & Mar. 2:  

Mar. 7 & 9:  
Review and midterm examination.

Mar. 21 & 23:  

Mar. 28 & 30:  

Apr. 4 & 6:  
**WW**, entire book.

Apr. 11 & 13:  
Short papers due; oral reports on them in class.

Apr. 18 & 20:  

Apr. 25 & 27:  

May 2:  
Review.

May 9 (?):  
Final examination.

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**Selective Bibliography**

The following books provide additional material on general topics related to institutions and their performance, and some of the more analytic readings on the design of fair-division, bargaining and arbitration, and voting and election systems.

**General Topics**


and the Evolution of Economics. Edward Elgar.


**Fairness, Bargaining and Arbitration, and Voting**


