Political Economy and Game Theory
66-836-01

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Course Outline

This course has two objectives: it provides an introduction to political economy and shows how issues of strategic political interaction can be analyzed with the help of game theory. The students will be familiarized with the main concepts of non-cooperative game theory. These concepts are then applied to analyze fundamental questions of political economy. At the end of the course the students will be able to read and understand the contributions to the modern political economy literature.

The topics covered in the course include expected utility theory, static and dynamic models, and models of complete and incomplete information. The exposition emphasizes the applications to political economy issues; formal aspects of game theory play a minor role. The applications relate to such topics as political philosophy, spatial models of political competition, rent-seeking contests, and international political interaction.

The course comprises three parts. In the first part, the formal theory is introduced step by step. The second part deals with the applications of the theory to political economy issues. Problem sets are provided to give the students the opportunity to review what they have learned.

Structure of the course

1. **Preferences, Choice, Utility and Uncertainty**
    - Theory 1
    - Applications
        - Redistribution from a constitutional (normative) perspective
        - Redistribution and social mobility: A positive perspective
    - Problem set 1

2. **Static Games of Complete Information**
    - Experiment A
    - Theory 2
    - Applications
        - Rational voter participation
        - Spatial models of electoral competition
            - Part I: 1-dimensional political spaces
            - Part II: 2-dimensional political spaces
        - Experiment B
        - Rent-Seeking
    - Problem set 2

3. **Dynamic Games of Complete Information I: Games with a finite number of stages**
    - Theory 3
    - Applications
        - Structure-induced equilibria in spatial voting models
        - The Campaign Contribution Approach
        - Seeking rents by setting rents
        - Leininger's "Münchausen" Model
    - Problem set 3

4. **Dynamic Games of Complete Information II: Repeated Games**
    - Theory 4.1 and 4.2
    - Applications
        - Lobbying and free-riding
        - Political convergence
        - Rent-seeking when victories are transient and losses final

5. **Static Games of Incomplete Information**
    - Experiment C
    - Theory 5
    - Applications
        - The efficiency of protecting the weak
        - Lobbying with asymmetric information
    - Problem set 5

6. **Dynamic Games of Incomplete Information**
    - Theory 6
    - Applications
        - The political economy of building pyramids
        - Envy and the resolution of inequality
    - Problem set 6