

Optimized Democracy

Spring 2024 | Lecture 0

Course Overview

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“Politics is solving today's problems
with yesterday's tools.”



Objective

Provide students with a rigorous perspective on, and a technical toolbox for, the design of better democratic systems



UNDERGRAD VS. GRAD



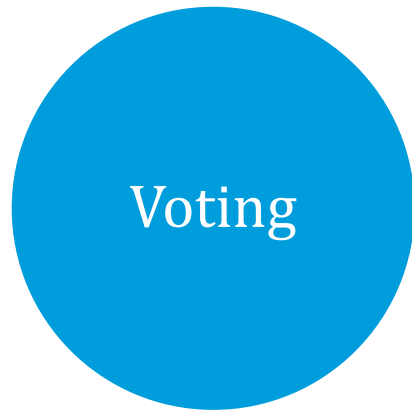
Undergrad

Understand existing
ideas and apply them



Grad

Creativity required,
generate new ideas



SYLLABUS

| Voting | Allocation |
|-------------------------|---|
| Voting Rules | Cake cutting |
| The axiomatic approach | Rent division |
| Strategic manipulation | Indivisible goods |
| Restricted preferences | Random assignment |
| Electoral competition | Sortition |
| The epistemic approach | Apportionment in the 19 th century |
| Liquid democracy | Apportionment in the 20 th century |
| Committee elections | Redistricting as cake cutting |
| Participatory budgeting | Identifying gerrymandered maps |
| | The Electoral College |

EXAMPLES



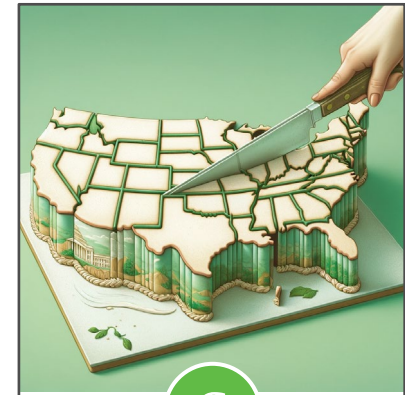
A

Participatory
budgeting



B

Citizens'
assemblies



C

Fair
redistricting

REQUIREMENTS

- Four theoretical homework assignments
($10\% \times 4 = 40\%$)
- Participation (15%), in the sense of **active participation in class**
- Research project (45%), which should raise novel technical questions and provide some nontrivial answers

LOGISTICS

- Course website is public
- Sign up for Ed through the course website
- TFs: Itai Shapira and Shirley Zhang
- My office hours by appointment
- All lectures are recorded
- If you are enrolled and “shopping,” please decide by the end of the week to allow other students to enroll (currently 207 petitions)