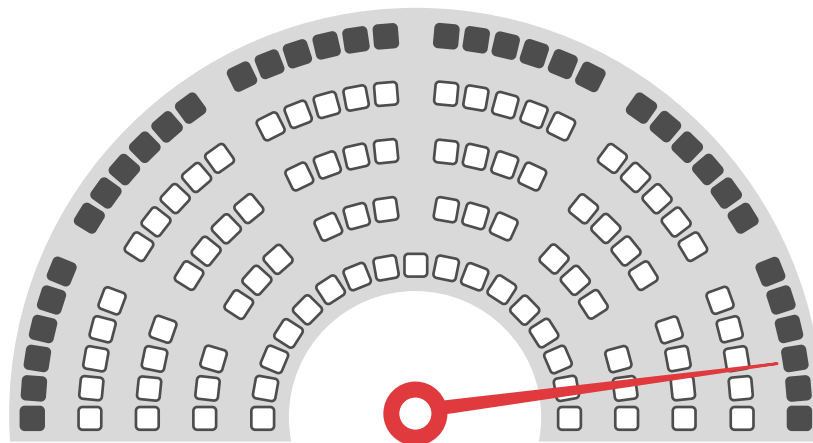




Optimized Democracy

Fall 2026 | Lecture 0

Course Overview

Ariel Procaccia | Harvard University



Pia Mancini

“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

SYLLABUS

Voting Rules	Liquid democracy
The axiomatic approach	Sortition
Arrow and friends	Quadratic voting
Distortion	Proportional representation
Strategic manipulation	Participatory budgeting
Restricted preferences	Online deliberation
Electoral Competition	The Electoral College
The epistemic approach	Apportionment in the 19 th century
	Apportionment in the 20 th century
	Identifying gerrymandered maps
	Fair redistricting

 Intro to computational social choice

 Emerging democratic paradigms

 Democracy in America

EXAMPLES



A

Participatory
budgeting



B

Citizens'
assemblies



C

Fair
redistricting

REQUIREMENTS

- Four theoretical homework assignments ($10\% \times 4 = 40\%$) — **AI forbidden**
- Assignments are graded through a 1-1 oral “quiz” with the TFs
- Participation (15%), in the sense of **active participation in class**
- Research project (45%), which should raise novel technical questions and provide some nontrivial answers — **AI allowed**

LOGISTICS

- Course website is public
- Sign up for Ed through the course website
- TFs: Carter Blair and Max Rubin-Toles
- My office hours by appointment
- All lectures are recorded