

Course information:

- Lectures: Poncet S7, 10:15a-12:15a, on September 12, 19, 24, 26; October 3, 10, 17, 31; November 7, 14, 21, 28, 2024
- Office hours: Wednesdays, 5:00p-6:00p (online)
- Professor: Romain Ferrali [romain.ferrali@univ-amu.fr]

This syllabus is subject to change at the discretion of the professor

1. Course description

This course provides an introduction to game theory applied to classical problems in political economy. Through these applications, we cover standard classes of games and their related solution concepts. Specifically, we cover static and dynamic games of complete and incomplete information. Emphasis is given to rigorous treatment of the underlying mathematical concepts.

- Static games of complete information: Hotelling's model
- Static games of incomplete information: the jury voting problem
- Dynamic games of complete information: democratization
- Dynamic games of incomplete information: entry deterrence in elections

2. Course material

Lecture notes will be posted after each lecture on Ametice. You may also refer to the following textbooks, of which copies are available in the University library. The textbooks will not be followed rigorously.

- McCarty, Nolan; Meirowitz, Adam. 2007. *Political Game Theory*. Cambridge University Press
- Fudenberg, Drew; Tirole, Jean. 1991. *Game Theory*. MIT Press

3. Tentative schedule

Week	Theme	Content	References
1	Static games of complete information	Definitions and theory	MM5, FT1
2		Application: the Hotelling model of political competition	
3		Other applications	
4	Dynamic games of complete information	Definitions and theory	MM7, FT3
5		Application: democratization	
6		Other applications	
7	Static games of incomplete information	Definitions and theory	MM6, FT6
8		Application: the jury voting model	
9		Other applications	
10	Dynamic games of incomplete information	Definitions and theory	MM8, FT8
11		Application: entry deterrence in elections	
12		Other applications	

4. Learning outcomes

Upon completion of the course, students should be able to:

- Match real-world problems in politics to the four classes of games studied during the course.
- Characterize the equilibria of the four classes of games studied during the course.
- Derive the comparative statics of said equilibria.
- Recognize the limitations of the concepts studied in class, with some awareness of the discussion surrounding said limitations.

5. Assignments and grades

This course is evaluated through a final exam.

6. Academic integrity

It is expected that students be aware of and respect the academic integrity norms as defined by Aix-Marseille Université. The « Charte relative à la lutte contre le plagiat de l'Université d'Aix-Marseille » (TX-DFD-40, <https://procedures.univ-amu.fr/dfd/tx-dfd-40-charte-relative-a-lutte-contre-plagiat>) reminds the University's commitment to the principles of academic integrity.

Alleged cases of fraud or plagiarism will be handled as per the PR-DAJI-101 procedure; « Section disciplinaire usagers », <https://procedures.univ-amu.fr/daji/pr-daji-101-section-disciplinaire-usagers>.

7. Student accessibility

The University is an open, universal environment that celebrates equality in rights and opportunities. As a public institution, its mission is to encourage everyone's insertion and success. The question of accessibility is integral to those values. Aix-Marseille Université is deeply committed to the question of accessibility.

In order to benefit from accommodations for your studies and/or exams, please contact your campus's disability office as soon as possible.

For further information, please refer to <https://www.univ-amu.fr/fr/public/mission-handicap-amu>