



TEACHING GUIDE - 2026-2027

Game Theory Applied to International Relations and Economics

UGRA_017262

Departments	Department of Economics, Finance & Accounting
Teaching Languages	English
ECTS	4
Teacher responsible	Daniel Sanchez Moscona - daniel.sanchez6@esade.edu

Course Goals

You will:

- Familiarize yourself with the main tools of game theory;
- Apply those tools to real world situations (with a focus on international relations, voting systems and Economics);
- Upgrade your analytical skills in an intellectually and professionally useful manner.
- Acquire an additional set of tools to analyze complex situations in social, economic, politics and international relations contexts.

Previous knowledge

Some knowledge of microeconomics and being comfortable with basic algebra is recommendable.

Prerequisites

None

Teaching methodology

This course will employ a combination of lectures, discussions, and problem-solving sessions, to foster both conceptual understanding and practical skills. The instructional approach is designed to encourage active engagement, critical thinking, and collaborative learning.

The instructor will regularly provide problem sets that the students must solve independently, in order to master the concepts of the course.

Description

Course contribution to program

Game Theory helps anyone interested in social science to understand strategic interactions between agents with different, and often competing, objectives. In this context, it provides students with useful tools to analyze firms' decisions in oligopolistic markets, interactions between nations, interactions between different political parties and many other situations.

It is an important subject for anyone that wants to specialize in Global Economics or Politics and with interest in understanding the governance of institutions.

Short description

The course will introduce students to basic concepts in Game Theory. We will analyze simultaneous decision games, sequential games and applications to Economics and International Relations. We will also briefly discuss voting systems and games with imperfect information.

Bibliography

Dixit, A. and S. Skeath, Games of Strategy, New York: W.W. Wiley (Book)

Activities

Analytical exercises

In-class exercises and problem sets

Written and/or oral exams

Final Exam - To pass the course, students must achieve a minimum of 40% in the final exam.

Quizzes/tests

Three short unit tests.

Content

#	Topic
1	Introduction to Strategic Thinking and Game Theory
2	Dominant strategies and Nash equilibrium
3	Sequential games
4	Game Theory and applications to International Relations - the preventive war model
5	Game Theory and applications to Economics - competition and collusion
6	Voting systems
7	Introduction to cooperative games
8	Games with imperfect information

Assessment

Tool	Assessment tool	Category	Weight %
Written and/or oral exams	Final Exam	Retake and ordinary round	50.00%
Participation in program activities	Class participation	Retake and ordinary round	20.00%

Tool	Assessment tool	Category	Weight %
Written and/or oral exams	Unit exams	Retake and ordinary round	30.00%

PROGRAMS

BITLASI22-Bachelor in Transformational Leadership and Social Impact (Undergraduates: Business)
 BITLASI22 Year 4 (Optative)

G114-Global Governance Exchange Program (Undergraduates: Law)
 G114 Year 1 (Optative)