# Game Theory

### Wuhan Unviersity

Fall 2022

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# **Course Logistics**

• Class Room: 4-301

• Class Hours: Tuesday 14:05 - 16:30 (6 - 8 节)

• Duration: September 6 - November 15 (Week 1 - 11)

## **Course Description**

This course provides undergraduate students with foundation knowledge in game theory. Topics include dominance, Nash equilibrium, backward induction, repeated games, etc.

#### **Course Materials**

- Course Website: https://xhu.github.io/teaching/game2022fall
- References:
  - Gibbons, R. (1992). A Primer in Game Theory.
  - Open Yale Course: Game Theory (https://oyc.yale.edu/economics/econ-159)

#### Assessments

The grade will count the assessments using the following proportions:

- Class Participation and Assignments: 30%
  - -3-4 assignments in total.
  - We will use QQ group to collect assignments.
- Final Exam: 70%
  - Date: To be announced

### Schedule

The schedule is tentative and subject to change.

Week 01, 09/06: Introduction

Week 02, 09/13: Dominated Strategies, Best Responses, Nash Equilibrium

Week 03, 09/20: Applications

Week 04, 09/27: Mixed Strategies

Week 05, 10/04: Backward Induction

Week 06, 10/11: Applications

Week 07, 10/18: Subgame Perfect Nash Equilibrium

Week 08, 10/25: Repeated Games

Week 09, 11/01: Static Games of Incomplete Information

Week 10, 11/08: Dynamic Games of Incomplete Information

Week 11, 11/15: Applications