

# Game Theory

Wuhan University

Spring, 2022

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## Course Logistics

- Class Room: 5-203
- Class Hours: Monday 18:30 - 20:55 (11 - 13 节)
- Duration: February 14 - April 25 (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/game2022spring>
- 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: 20%
  - 3 – 4 assignments in total.
  - We will use QQ group to collect assignments.
- Final Exam: 80%
  - Date: April 25 (Week 11), in-class

## Schedule

The schedule is tentative and subject to change.

**Week 01, 02/14 :** Introduction

**Week 02, 02/21 :** Dominated Strategies, Best Responses, Nash Equilibrium

**Week 03, 02/29 :** Applications

**Week 04, 03/07 :** Mixed Strategies

**Week 05, 03/14 :** Backward Induction

**Week 06, 03/21 :** Applications

**Week 07, 03/28 :** Subgame Perfect Nash Equilibrium

**Week 08, 04/04 :** Repeated Games

**Week 09, 04/11 :** Asymmetric Information: auction

**Week 10, 04/18 :** Asymmetric Information: signalling

**Week 11, 04/25 :** Final Exam