| 科目ナンバリング U-LAS06 10019 LE43 | | | | | | | | | | |
|-----------------------------|---------------------|--|------|-------|-----|----------------------------------|------------|--|----------------|------|
| 授業科目 <英訳> | | Introduction to Game Theory-E2 Introduction to Game Theory-E2 | | | | ^{旦当者所属} 経済学研究和 戦名・氏名 | | | 斗特定講師 李 晨 | |
| 群 | 人文・社会科学科目群 分野(分類) 法 | | | | 法・政 | 政治・経済(基礎) | | | 使用言語 | 英語 |
| 旧群 | A群 | 単位数 | 2単位 | 週コマ数 | 174 | | 授業形態講義(文 | | 義(対面授 | 業科目) |
| 開講年度・ 開講期 | 2025 · | 前期 | 曜時限月 | 月3/月4 | | | 配当学年 主として1 | | 回生 対象 学 | 生全学向 |

[授業の概要・目的]

Game theory is the study of strategic interactions among rational decision-makers, where the outcome for each participant depends not only on their own actions but also on the actions of others. It provides a framework for analyzing situations in which individuals or groups must make decisions that affect one another.

A complete information game is a type of game in which all players have full knowledge of the rules, strategies, and payoffs of other participants, allowing them to make fully informed decisions.

This course will cover standard undergraduate-level material on complete information games, including the fundamental concepts, the formalization of game models, and key solution concepts such as Nash equilibrium. Through this course, students will gain a foundational understanding of strategic behavior in economic, political, and social contexts.

[到達目標]

- Develop an understanding of the models and solution concepts of complete information games.
- Practice and acquire essential skills to analyze and solve application problems in complete information games.

[授業計画と内容]

The lectures will be organized as follows.

- 1. What is game theory.
- 2. Introduction to normal-form games.
- 3. Dominance and strictly dominant strategy equilibrium.
- 4. Common knowledge of rationality and iterated elimination of strictly dominated strategies.
- 5. Nash equilibrium: Theory.
- 6. Nash equilibrium: Applications.
- 7. Mixed strategy.
- 8. Introduction to extensive form games.
- 9. Backward induction.
- 10. Subgame perfect equilibrium: Theory.
- 11. Subgame perfect equilibrium: Applications.
- 12. Bargaining game.
- 13. Repeated game.
- 14. Review lecture.
- (Final examination.)
- 15. Feedback.

Introduction to Game Theory-E2(2)

[履修要件]

Certain topics will assume a foundational understanding of derivatives and integrals.

[成績評価の方法・観点]

Homework (25%) Class participation (5%) Final examination (70%)

[教科書]

授業中に指示する

[参考書等]

(参考書)

授業中に紹介する

[授業外学修(予習・復習)等]

Students will be assigned three problem sets as the homework.

[その他(オフィスアワー等)]

Office hour by e-mail appointment.

[主要授業科目 (学部・学科名)]