		U-LAS06 10019 LE43						
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Game theory studies the strategic interactions among players. It provides new tools and insights in understanding and explaining socioeconomic phenomenon. Game theory has also been widely applied to other subjects such as law, political economy, sociology, life science, and engineering. This course introduces basic concepts, analytical tools, and modelling techniques in the applied game theory. In particular, it covers the socioeconomic applications such as pricing behaviors of firms, voting procedures, public resource management, evolution of species, and school choice.

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   Learning the underlying principles of applied game theory
   Acquiring the skills to analyze problems of students' own interests

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The lectures will be organized as follows.

1. Introduction to strategic reasoning
2. Introduction to strategic modelling
3. Nash equilibrium in the discrete game
4. Nash equilibrium in the continuous game I: Theory
5. Nash equilibrium in the continuous game II: Applications
6. Sequential game with perfect information I: Theory
7. Sequential game with perfect information II: Applications
8. Sequential game with imperfect information I: Theory
9. Sequential game with imperfect information II: Applications
10. Games with private information I: Theory
11. Games with private information II: Applications
12. Evolutionary game and biology I
13. Evolutionary game and biology II
14. Review lecture

Total: 14 classes and 1 feedback

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Some topics require basic knowledge of derivatives and integrals.

Introduction to Game Theory-E2(2)

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Homework and class participation (30%)
Final examination (70%)

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Students will be assigned three problem sets as the homework.

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Office hour by appointment