

Peking University HSBC Business School
Spring 2017-Module 3

Game Theory and Applications

Professor:	Zhiyong Tu, Ph.D.	Office: 740
Phone:	86-755-26032017	Email: zytu@phbs.pku.edu.cn
Office Hours:	By appointment	
TA:		

Text:

Zhiyong Tu, 2009, Game Theory, Peking University Press.

Fudenberg and Tirole, 1991, Game Theory, MIT Press

Course Content and Objective:

Game theory studies the strategic behavior under conflicts of interests. It provides a theoretical basis for general economics.

Game theory helps us to understand the underlying mechanisms for individual decision making, corporate management, market operation and government intervention. Hence it has wide applications in the real world.

This course takes a rigorous approach to the theory of games, and introduces its applications under the frameworks of various models. The course avoids the causal treatment of the theory, so it requires a certain level of mathematical preparation.

I will cover most of the essential materials in game theory. They include various equilibrium concepts, static and dynamic games, games of complete and incomplete information, equilibrium refinements, etc.

When dealing with the theoretical applications, I may focus on two distinct areas: platform competition and financial institutions.

After this course, students shall: obtain a thorough understanding of game theory; gain the skills to build game theoretical models; and develop the appreciation for the game theory literature. Preferably, students may find their interested topics for the future research.

Grading Policy:

Discussion	20%
Midterm	50%
Final Presentation	30%
<hr/>	
	100%

Academic Honesty:

Academic dishonesty discourages learning. Therefore all students are expected to abide by the code of academic honesty of PHBS, and to interact with one another respectfully, fairly, and honestly. Known instances of academic dishonesty will be prosecuted through the University's judiciary system.