

博弈论

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40511103,,博弈论,Game Theory

总学分: 3,总学时: 48,周学时:48/0/0

开课单位: 经济管理学院,课程类别: 本科专业课,课程特色: 全
外文授课,课程面向: 本科生

考核方式: 考试,教学方式: 课堂讲授为主

课程团队: 助教: 袁帅, 单有, 盖嘉诺 马弘

课程内容简介:博弈论是几乎所有现代经济理论的基础。它是本科经济学中最有趣的课程之一。它最初作为数学领域出现,现已成功应用于经济学的所有领域。此外,博弈论在哲学、法律和政治等其他社会科学以及进化生物学、计算机科学等自然科学中也发挥着越来越重要的作用。本课程介绍博弈论,重点介绍基本的博弈论分析,包括各类博弈的概念、分析方法和应用。我们将讨论具有完美信息的静态博弈、信息不完美的静态博弈以及有或没有完美信息的动态博弈。大多数课程将以英语授课,课程内容既包括博弈的具体场景实验,也包括背后的理论基础,强烈鼓励学生参与。

Course Description:Game theory is the foundation of almost all modern economic theory. It is one of the most interesting courses in undergraduate economics. Emerged originally as a field of mathematics, it has been successfully applied to all fields of economics. Furthermore, game theory also plays an increasing role in other social sciences such as philosophy, law and politics, and in natural science such as evolutionary biology and computer science, etc. This course is an introduction to game theory, which puts emphasis in introducing basic game-theoretic analysis, including the conception, analytic techniques and applications for each type of games. We will discuss static games with perfect information, static games with imperfect information, and dynamic games with or without perfect information. Most class sessions will be delivered in English and will consist of both “hands-on” experiences in structured strategic situations as well as lectures about the theory underlying these situations. Student participation is strongly encouraged.

先修要求:微积分, 概率论, 中级微观经济学; Calculus, probability, intermediate microeconomics

适用院系专业:经管类专业

教学目标:1. 了解博弈论基本知识 2. 培养用互动决策思维来观察和理解社会的能力 3. 能够阅读运用初等博弈模型的社会科学论文 4. 为进一步学习博弈论高级内容打下基础

预期学习成效:通过本课程的教学,使学生掌握经济博弈论的基本理论知识,理解博弈论的思想与逻辑,在此基础上,运用博弈论知识,正确分析现实问题,做出理性决策。在现实经济中运用博弈的思想来看待和解决问题。

参考书: 参考书: 《策略博弈》, 蒲勇健等译, 中国人民大学出版社, 2012 Dixit, Avinash, and Susan Skeath, Games of Strategy, 3rd edition, W. W. Norton & Company, 2009.