

Professor Zvika Neeman, PhD

Tel-Aviv University

zvika@tauex.tau.ac.il

October 21-24, 2019

ADVANCED MICROECONOMICS: Game Theory

Course Outline

The course provides a short introduction to game theory. Topics covered include normal and extensive form games, with complete and incomplete information, as well as more advanced topics such as sequential rationality, auctions, revenue equivalence, the winner's curse, mechanism design, and reputation. Many examples, both abstract and more applied will be presented.

Prerequisites

The course is self contained. Basic knowledge of probability and calculus is assumed.

Tentative Lecture Plan

Monday (21/10) Strategic Form Games

09:30-10:45 Lecture 1: Dominant Strategies
11:00-12:15 Lecture 2: Successive Elimination of Strictly Dominated Strategies
12:15-14:00 Lunch
14:00-15:15 Lecture 3: Nash Equilibrium
15:45-17:00 Lecture 4: Existence of Nash Equilibrium

Tuesday (22/10) Extensive Form Games

09:30-10:45 Lecture 5: Backwards Induction
11:00-12:15 Lecture 6: Subgame Perfect Equilibrium
12:15-14:00 Lunch
14:00-15:15 Lecture 7: Rubinstein's Model of Alternating Offer Bargaining
15:45-17:00 Lecture 8: Repeated Games

Wednesday (23/10) Games with Incomplete Information

09:30-10:45 Lecture 9: Sequential Rationality
11:00-12:15 Lecture 10: Bayesian Games
12:15-14:00 Lunch
14:00-15:15 Lecture 11: Auctions with Private Values
15:45-17:00 Lecture 12: Revenue Equivalence

Thursday (24/10) Mechanism Design/Reputation

09:30-10:45 Lecture 13: The Winner's Curse
11:00-12:15 Lecture 14: Mechanism Design: Bilateral Trade
12:15-14:00 Lunch
14:00-15:15 Lecture 15: Good and Bad Reputation
15:45-17:00 Final Exam

Venue

Halle Institute for Economic Research (IWH) – Member of the Leibniz Association, Kleine Maerkerstrasse 8, 06108 Halle (Saale), Germany, conference room (ground floor).

Registration

Annett Hartung, E-mail: annett.hartung@iwh-halle.de, until September 1, 2019. The course is designed for at most 25 participants.