

# Bavarian Graduate Program in Economics (BGPE)

## Advanced Microeconomics

September 15 - 19, 2025

Zvika Neeman

### Course Outline

The course provides a short introduction to game theory and to the field known as “information economics.” 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 and information design, and reputation. Many examples, both abstract and more applied will be presented.

Please note that the course will start on **Sunday, September 14**, in the evening with a welcome meeting at 19:00 followed by dinner. The course will end at lunchtime, on **Friday, September 19**.

The **Final Examination** will take place on **Thursday, October 2nd, 2025**.

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

### Tentative Lecture Plan

#### **Sunday (14/9)      Brief Introduction**

19:00-19:30 Brief Introduction

19:30-      Dinner

#### **Monday (15/9)      Strategic Form Games**

7:00-9:30 Breakfast

9:30-10:45 *Lecture 1: Dominant Strategies*

10:45-11:00 Coffee break

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*

15:15-15:45 Coffee break

15:45-17:00 *Lecture 4: Existence of Nash Equilibrium*

17:00-19:00 Free time

19:00-      Dinner

#### **Tuesday (16/9)      Extensive Form Games**

7:00-9:30 Breakfast

9:30-10:45 *Lecture 5: Backwards Induction*

10:45-11:00 Coffee break

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*  
15:15-15:45 Coffee break  
15:45-17:00 *Lecture 8: Repeated Games*  
17:00-19:00 Free time  
19:00- Dinner

**Wednesday (17/9) Games with Incomplete Information**

7:00-9:30 Breakfast  
9:30-10:45 *Lecture 9: Sequential Rationality*  
10:45-11:00 Coffee break  
11:00-12:15 *Lecture 10: Bayesian Games*  
12:15-14:00 Lunch  
14:00-15:15 *Lecture 11: Auctions with Private Values 1*  
15:15-15:45 Coffee break  
15:45-17:00 *Lecture 12: Auctions with Private Values 2*  
17:00-19:00 Free time  
19:00- Dinner

**Thursday (18/9) Auctions, Mechanism Design, and Information Design**

7:00-9:30 Breakfast  
9:30-10:45 *Lecture 13: Revenue Equivalence*  
10:45-11:00 Coffee break  
11:00-12:15 *Lecture 14: The Winner's Curse*  
12:15-14:00 Lunch  
14:00-15:15 *Lecture 15: Mechanism Design*  
15:15-15:45 Coffee break  
15:45-17:00 *Lecture 16: Information Design*  
17:00-19:00 Free time  
19:00- Dinner

**Friday (19/9) Reputation**

7:00-9:30 Breakfast  
9:30-10:45 *Lecture 17: Good Reputation*  
10:45-11:00 Coffee break  
11:00-12:15 *Lecture 18: Bad Reputation*  
12:15-14:00 Lunch