

**Bavarian Graduate Program in Economics (BGPE)**  
**A Course on Game Theory and Information Economics**  
**July 29 - August 2, 2013**

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**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, and the classical results of information economics including moral hazard and adverse selection, signaling and screening. 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 (29/7)      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 (30/7)      Extensive Form Games**

7:00-9:30 Breakfast

9:30-10:45 *Lecture 1: Backwards Induction*

10:45-11:00 Coffee break

11:00-12:15 *Lecture 2: Subgame Perfect Equilibrium*

12:15-14:00 Lunch

14:00-15:15 *Lecture 3: Rubinstein’s Model of Alternating Offer Bargaining*

15:15-15:45 Coffee break

15:45-17:00 *Lecture 4: Repeated Games*

17:00-19:00 Free time

19:00- Dinner

**Wednesday (31/7) Games with Incomplete Information**

7:00-9:30 Breakfast

9:30-10:45 *Lecture 1: Bayesian Games*

10:45-11:00 Coffee break

11:00-12:15 *Lecture 2: Public Goods*

12:15-14:00 Lunch

14:00-15:15 *Lecture 3: Auctions with Private Values*

15:15-15:45 Coffee break

15:45-17:00 *Lecture 4: The Winner's Curse*

17:00-19:00 Free time

19:00- Dinner

**Thursday (1/8) Examples**

7:00-9:30 Breakfast

9:30-10:45 *Lecture 1: Bilateral Trade*

10:45-11:00 Coffee break

11:00-12:15 *Lecture 2: Bad Reputation*

12:15-14:00 Lunch

14:00-15:15 *Lecture 3: Strategic Voting*

15:15-15:45 Coffee break

15:45-17:00 *Lecture 4: Moral Hazard*

17:00-19:00 Free time

19:00- Dinner

**Friday (2/8) Information Economics**

7:00-9:30 Breakfast

9:30-10:45 *Lecture 1: Adverse Selection*

10:45-11:00 Coffee break

11:00-12:15 *Lecture 2: Signaling*

12:15-14:00 Lunch

14:00-15:15 *Lecture 3: Screening*