

Specialization Decision Sciences: Game Theory, Psychology, and Data Analysis

Institute for Cognition and Behavior
&
Institute for Markets and Strategy



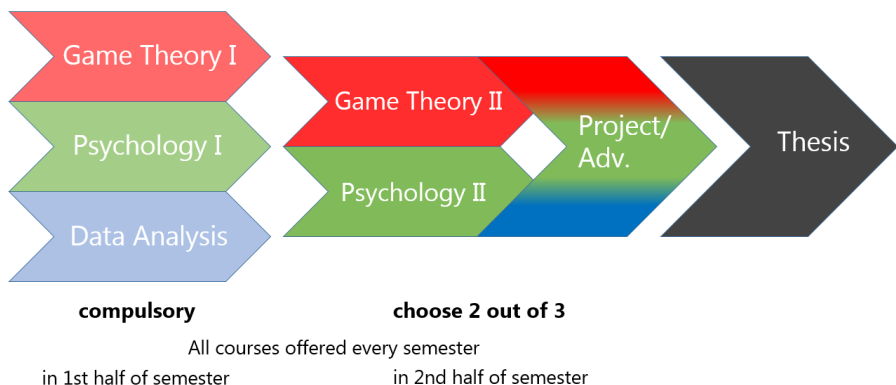
**6 Courses
Taught in English
All courses offered every semester**

Compulsory courses:

Game Theory I
Business Psychology I
Empirical Data Analysis
(usually offered in the first half of the semester)

Choose two out of these three courses:

Game Theory II+Project course, or
Business Psychology II+Project course, or
Business Psychology II + Game Theory II
(usually offered in the second half of the semester)



On successful completion of the Specialization, students should be able to:

- be familiar with different sources of empirical evidence (surveys, experiments, field data) and the appropriate methods to analyze them
- demonstrate basic knowledge and understanding of game-theoretical tools and solution concepts,
- demonstrate an understanding of the underpinnings and core psychological concepts involved in managerial decision-making,
- analyze strategic situations and the incentives of players therein,
- analyze decision-making behavior with respect to psychological aspects and biases,
- derive predictions about decision-making and behavior in economic contexts

The Courses

Empirical Data Analysis (PI, 2 SWS)

- Empirical identification problem
- Basic and multiple regression
- Instrumental variables, regression discontinuities analysis
- Laboratory, online, and field experiments
- Time series data analysis

Game Theory I: Strategic behavior (PI, 2 SWS)

- Basics of game theory, what is a strategy?
- Markets: Competition and collusion, market structure
- Markets: Timing and commitment
- Bargaining and negotiation, committee agenda setting
- Cooperation, common pools and public goods

Game Theory II: Information (PI, 2 SWS)

- Advanced concepts in game theory, imperfect information
- Reputation
- Private value auctions
- Common value auctions
- Signaling and cheap talk

Business Psychology I (PI, 2 SWS)

- Motivation & incentives
- Attitude development & perception
- Judgment & decision making
- Social Cognition and blind spots
- Manipulation, nudging, and practical implications

Business Psychology II (PI, 2 SWS)

- Leadership behavior & power
- Group structure & process
- Interpersonal communication
- Trust and cooperation
- Emotions/action/norms

Project / Advanced Course (PI, 2 SWS)

The specific design and offerings of this course may vary from term to term, in order to cater to the heterogenous skills/interests of students and depending on the availability of real-world business projects.

To apply:

- **Register for AG Access to Specialization:
Decision Sciences: Game Theory, Psychology,
and Data Analysis in LPIS**
- Upload your CV, Performance Record
and Motivational letter and fill out the
application form on CANVAS

Preconditions for non-BBE Students:

- STEOP: Intro BWL, Intro VWL, Math
- CBK: Stats
- or equivalent

Preconditions for BBE Students:

- Business and Society
- Foundations in Microeconomics
- Quantitative Methods 1+2
or equivalent Introductory Phase

We accept a limited number of 50 students per term.

We are looking for students who are clever, creative, and analytical.



For more information, please visit www.wu.ac.at/ims