

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

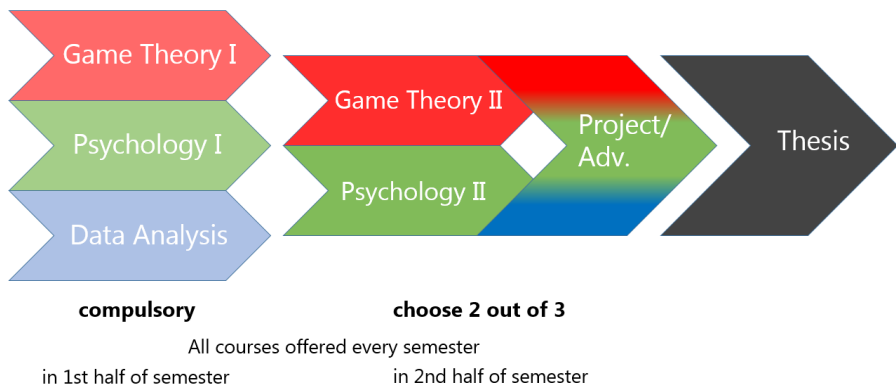
Compulsory courses:

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

Choose between Game Theory II and Psychology II for course IV

Choose between Project Course and Advanced Negotiation for course IV

Game Theory II + Project course, or
Business Psychology II + Project course
(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 heterogeneous 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, GPA
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/en/ds