

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

Institute for Cognition and Behavior  
&  
Institute for Markets and Strategy



## 5 Courses

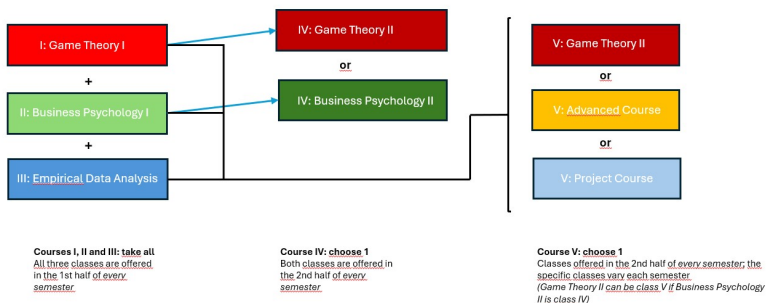
All courses are taught in English and offered every semester

Courses I, II and III are all compulsory offered in the first half of the semester:  
**Game Theory I, Business Psychology I & Empirical Data Analysis**

For courses IV and V, you have a choice of at least 2 different classes. These courses are offered in the second half of the semester.

Course IV: **Game Theory II or Psychology II**

Course V: **Project Course or Advanced Course** (different classes) **or Game Theory II** ( in this case, Business Psychology II needs to be your course IV)



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, Sciences: Game Theory, Psychology, and Data and Data Analysis in LPIS Analysis in LPIS
- Upload your CV, Transcript, GPA and essay, and fill out the application form on CANVAS

Prerequisites for non-BBE Students:

- STEOP: & CBK: Business Administration and Digital Economy; Economics and Sustainable Socioeconomic Systems; Statistics; Math (not required for BaWiRe)
- or equivalent

Prerequisites for BBE Students:

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

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](http://www.wu.ac.at/en/ds)