

Field “Design & Behavior”

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C-SEB

CENTER FOR SOCIAL
AND ECONOMIC BEHAVIOR
UNIVERSITY OF COLOGNE

We look for the **basic economic and psychological principles** of human behavior and their implications for economic markets.

- **Social and economic behavior** shape almost all aspects of our lives.
- Also the success of societies, politics, and markets strongly depends on **behavior as well as the underlying motivation and cognition**.
- Therefore, a sound knowledge about the **determinants** of human behavior, and how it can be ‚managed‘, is of crucial importance for understanding and addressing major challenges to society and humanity.



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- C-SEB aims to develop an **empirically based theory that explains the effects of economic incentives and human information processing** in social and economic contexts.
- To do so, we combine knowledge from **behavioral economics** and **social cognition research**.
- In particular, we seek to build a bridge between **laboratory research** and **real-world contexts** in order to contribute to solutions to contemporary challenges in the economy, e.g. cooperation and trust in negotiations or organizations or the design of incentive systems in companies or markets.

Research Units within C-SEB

- The **DFG Research Unit “Design & Behavior: Economic Engineering of Firms and Markets”** conducts research in order to design institutional mechanisms in firms and markets, taking into account the limitations and complexity of human behavior.
- The **UoC Research Group “Behavioral Management Science Group”** is a network of C-SEB members and other researchers of the Faculty of Management, Economics, and Social Sciences at the UoC that conducts research on management practices by employing methods from behavioral economics.
- The **DFG Research Unit “Relativity in Social Cognition”** investigates the antecedents and consequences of comparative thinking by incorporating findings from psychology and economics.
- The **DFG Research Unit “Psychoeconomics”** brings together researchers from different disciplines to develop an integrative, data-driven understanding of how interacting motives affect human decisions and behavior.
- The **UoC Forum “Motivation, Self-Control, and Economic Behavior”** is an interdisciplinary endeavor providing a scientific platform for structuring research in the field of self-control.

The field „Design & Behavior“- Overview

- The field „Design & Behavior“ may include the following modules:

Specialisation section	ECTS	CC/EC	Required ECTS	
Seminar Design and Behavior	6	CC	6	18
Economic Engineering	6	EC	12	
Auction Theory	6	EC		
Contract Theory	6	EC		
Behavioral Economics	6	EC		
Topics in Design and Behavior A	6	EC		
Topics in Design and Behavior B	6	EC		
Topics in Design and Behavior C	6	EC		
Topics in Design and Behavior D	6	EC		
Matching and Market Design: Theory and Practice	6	EC		

Specialisation module **Seminar Design and Behavior**

▪ **Learning objectives**

The students

- independently investigate current issues in research and applied practice in market design and behavioral economics, applying the microeconomic knowledge they have acquired on the program.
- critically study the theoretical and practical literature on the subject.
- summarize their findings in a written paper, present their results and discuss them with the other seminar participants.

▪ **Module content**

Current issues in market design, behavioral and experimental economics.

▪ **Modul manager**

Univ.-Prof. Dr. Bettina Rockenbach

▪ **Courses**

Seminar “Topics in Behavioral Economics” (14289.0602), SS18, Dr. Wenner

Seminar “Topics in Market Design” (14289.1100), SS18, Prof. Dr. Westkamp

Specialisation module **Economic Engineering**

▪ **Learning objectives**

The students

- apply their theoretical and empirical skills to real markets.
- identify problems in markets, develop possible solutions, and discuss them.
- investigate current economic challenges, and present their own ideas.

▪ **Module content**

- Evaluation of the roles of theory and laboratory/field experiments in the study of markets and incentive systems.
- Analysis of relevant behavioral phenomena and institutional details of particular importance for specific design problems.
- Discussion of practical applications of economic engineering in matching markets, auctions and other markets.

▪ **Module manager**

Univ.-Prof. Dr. Axel Ockenfels

▪ **Course**

Lecture/Exercise “Economic Engineering” (14289.0000/14289.0001), WS18/19, Prof. Dr. Ockenfels, Prof. Dr. Cramton, and Prof. Dr. Westkamp

Specialisation module **Auction Theory**

- **Learning objectives**

The students

- acquire a deeper understanding of the economic theory of auction design.

- **Module content**

- Auctions with “private values”: second-price auctions, first-price auctions, reservation prices, revenue equivalence theorem, extensions
- Mechanism design: revelation principle, optimal mechanisms, efficient mechanisms
- Auctions with “interdependent values”: comparisons of auction proceeds, linkage principle

- **Module manager**

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- **Course**

Lecture/Exercise “Auction Theory” (14289.1500/14289.1501), WS18/19, Prof. Dr. Cramton

Specialisation module **Contract Theory**

▪ **Learning objectives**

The students

- recognise the concepts of information economics.
- describe and model situations with information asymmetries between several parties.
- analyse and discuss causal relationships in contract theory.
- apply methods for solving contract theory problems.

▪ **Modul content**

- Principal-agent models
- Mechanism design
- Hold-up problem
- Incomplete contracts

▪ **Module manager**

Univ.-Prof. Dr. Patrick W. Schmitz

▪ **Course**

Lecture/Exercise “Contract Theory” (14289.0100/14289.0101), SS18, Prof. Dr. Schmitz

Specialisation module **Behavioral Economics**

- **Learning objectives**

The students

- learn some of the main theoretical and empirical debates in Behavioral Economics.
- understand the way in which Behavioral economics has developed and how we can relate it to traditional models of economics.
- assess the strengths and weaknesses of different theories of Economic Behavior.

- **Module content**

The lecture provides an introduction to economic theories of boundedly rational behavior, focusing on their criticism of the homo oeconomicus concept.

- **Modul manager**

Univ.-Prof. Dr. Bettina Rockenbach

- **Course**

Lecture/Exercise “Behavioral Economics” (14289.0600/14289.0601), WS18/19, Dr. Lauer

Specialisation module **Topics in Design and Behavior A - D**

- **Learning objectives**

The students

- investigate current theoretical and applied issues in market and institution design with the methods and theories used in behavioral economics and microeconomics.
- examine and assess the applicability of various economic concepts.
- discuss the results in class with other course participants.

- **Module content**

Latest issues in institution and market design, plus methods and theories used in behavioral economics and applied microeconomics.

- **Module manager**

Univ.-Prof. Dr. Bettina Rockenbach

- **Course**

Seminar “Conducting Experiments with zTree” (14289.0603), SS18, Dr. Lauer

Specialisation module **Matching and Market Design:** **Theory and Practice**

- **Learning objective**

The students

- learn about leading theoretical models of matching markets.
- learn how a mixture of theory, experiments, and empirics can be used to analyse existing matching mechanisms and, if necessary, design better ones.

- **Module content**

- One-sided matching: House allocation and organ exchange
- Two-sided matching: Entry-level labor markets
- School choice and random assignment
- Matching with contracts: Distributional constraints and internet-ad auctions
- Large matching markets
- Combinatorial assignment and course allocation

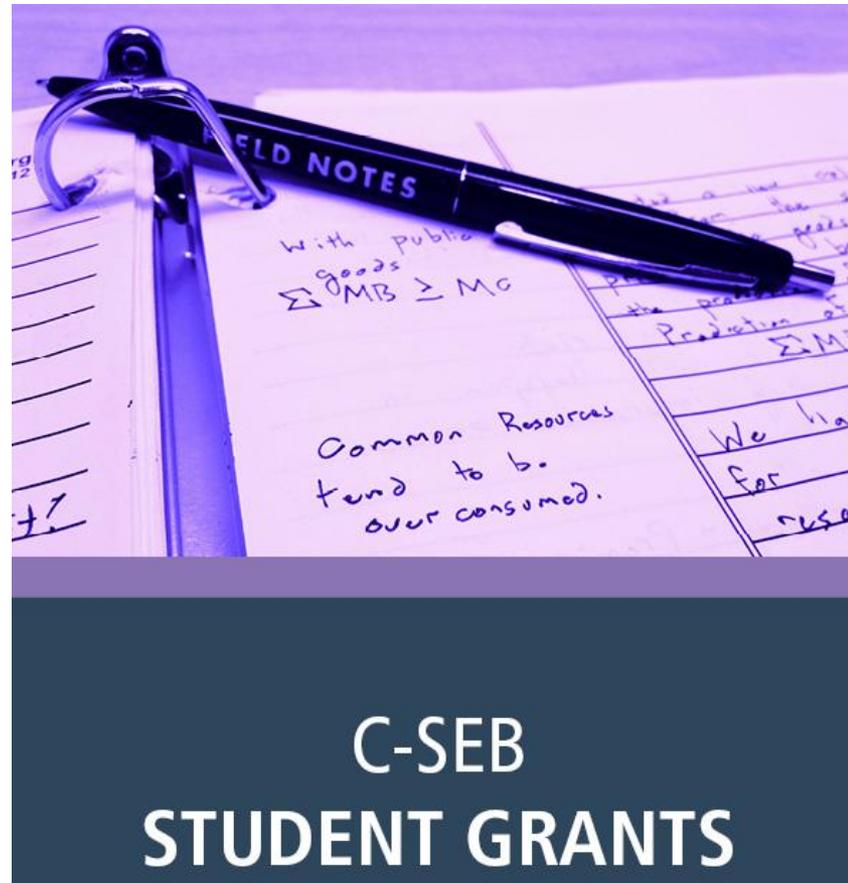
- **Module manager**

Univ.-Prof. Dr. Alexander Westkamp

- **Course**

Lecture/Exercise “Matching and market design: theory and applications” (14289.1100),
WS18/19, Prof. Dr. Westkamp

Funding opportunity for experimental master theses



For further information: <http://c-seb.de/>