



**SUBJECT DATASHEET**

**GAME THEORY IN THE SOCIAL SCIENCES**

**BMEGT439798**

# I. SUBJECT DESCRIPTION

## 1. SUBJECT DATA

### Subject name

GAME THEORY IN THE SOCIAL SCIENCES

### ID (subject code)

BMEGT439798

### Type of subject

class

### Course types and lessons

<i>Type</i>	<i>Lessons</i>
Lecture	2
Practice	0
Laboratory	0

### Type of assessment

term mark

### Number of credits

2

### Subject Coordinator

<i>Name</i>	<i>Position</i>	<i>Contact details</i>
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Dr. Szakadát István	associate professor	szakadat.istvan@gtk.bme.hu
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### Educational organisational unit for the subject

Department of Sociology and Communication

### Subject website

<https://edu.gtk.bme.hu>

### Language of the subject

magyar - HU

### Curricular role of the subject, recommended number of terms

Programme: **Elective subjects**

Subject Role: **Elective**

Recommended semester: **0**

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Programme: **Psychology Master's Programme - recommended elective subjects**

Subject Role: **Elective**

Recommended semester: **0**

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### Direct prerequisites

**Strong** None

**Weak** None

**Parallel** None

**Exclusion** None

### Validity of the Subject Description

Approved by the Faculty Board of Faculty of Economic and Social Sciences, Decree No: 580251/13/2023 registration number. Valid from: 29.03.2023.

## 2. OBJECTIVES AND LEARNING OUTCOMES

### Objectives

The aim of the subject is to introduce students key concepts of strategic thinking, and the models within Social Sciences that are built on these concepts. The course focuses on the practical use of theory.

### Academic results

#### Knowledge

1. Knows the concepts, the most important relationships and theories necessary to describe the regularities of actions that can be described by game theory;
2. knows and understands the most important features of interdependent social relations
3. knows the larger application areas of game theory, sees the connections between them.

#### Skills

1. Able to plan, organize and carry out independent study.
2. Able to understand and use typical literature and library resources on topics related to game theory and strategic thinking.
3. Able to recognize the typical social situations analyzed by game theory in everyday life and utilize what she has learned in theory in practice, she is able to use her creativity.

#### Attitude

1. Open to learning and accepting new information continuously produced by game theory
2. Cooperates with the instructor and fellow students during the expansion of knowledge
3. She expands her knowledge through continuous knowledge acquisition, and is open to the use of information technology tools.

#### Independence and responsibility

1. Openly accepts well-founded critical comments.
2. In some situations - as part of a team - she cooperates with her fellow students in solving tasks.
3. In her thinking, she uses a game theory approach to the interpretation of social phenomena.

### Teaching methodology

Lectures, game theory exercises.

### Materials supporting learning

- A tantárgy elvégzéséhez szükséges oktatási anyagok, szakirodalom a kurzus moodle-oldaláról érhető el a hallgatóknak (edu.gtk.bme.hu) – Books, notes, downloadable materials (edu.gtk.bme.hu)

## II. SUBJECT REQUIREMENTS

### TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

#### General Rules

The assessment of the learning outcomes formulated in point 2.2 takes place in the form of a midterm test. 70% participation on the lessons is required.

#### Performance assessment methods

Detailed description of the performance evaluations carried out during the term: 1. Performance assessment: precision and content are evaluated in the test.

#### Percentage of performance assessments, conducted during the study period, within the rating

- performance assessment: 100

#### Percentage of exam elements within the rating

#### Conditions for obtaining a signature, validity of the signature

#### Issuing grades

Excellent	95
Very good	90–94
Good	80–89
Satisfactory	60–79
Pass	50–59
Fail	< 50

#### Retake and late completion

Retakes and make-ups are regulated by the University's Code on Education and Examination.

#### Coursework required for the completion of the subject

classes	28
preparation for classes	12
preparation for assessment	20
total	60

#### Approval and validity of subject requirements

# III. COURSE CURRICULUM

## THEMATIC UNITS AND FURTHER DETAILS

### Topics covered during the term

1) Bevezetés, Játékok két játékossal: Játékok normál alakban. 2) Bevezetés, Játékok két játékossal: Játékok normál alakban. 3) Játékok két játékossal: Szekvenciális játékok. 4) Nem kooperatív játékok normál alakban, Nash tétele. 5) A játékok extenzív formája. 6) Információ függvény. 7) Ismételt játékok. 8) Kooperatív játékok átvihető nyereménnyel. 9) Kooperatív játékok átvihető nyereménnyel. 10) Shapley érték. 11) Gazdasági játékok. 12) Gazdasági játékok. 13) Gyakorló óra. 14) Zh

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### Additional lecturers

Dr. Mészáros József

### Approval and validity of subject requirements