



SUBJECT DATASHEET

GAME THEORY IN THE SOCIAL SCIENCES

BMEGT431485

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name

GAME THEORY IN THE SOCIAL SCIENCES

ID (subject code)

BMEGT431485

Type of subject

class

Course types and lessons

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

Type of assessment

exam

Number of credits

2

Subject Coordinator

<i>Name</i>	<i>Position</i>	<i>Contact details</i>
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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**

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. is able to recognize the typical social situations analyzed by game theory in everyday life and utilize what he/she has learned in theory in practice, she/he is able to use her/his 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. expands her/his knowledge through continuous knowledge acquisition, 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/he cooperates with her/his fellow students in solving tasks
3. in her/his thinking, she/he uses a game theory approach to the interpretation of social phenomena.

Teaching methodology

Lectures, game theory exercises.

Materials supporting learning

- Tankönyvek, jegyzetek, letölthető anyagok – Books, notes, downloadable materials

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 for the signature.

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

Aktív részvétel az órákon

Issuing grades

Excellent	100
Very good	90–94
Good	80–89
Satisfactory	60–79
Pass	50–59
Fail	< 50

Retake and late completion

Retake and make-up test options are defined by the valid regulations of 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 játékosal: Játékok normál alakban. 2) Bevezetés, Játékok két játékosal: Játékok normál alakban. 3) Játékok két játékosal: 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

Additional lecturers

Dr. Mészáros József

Approval and validity of subject requirements