



TANTÁRGYI ADATLAP SUBJECT DATASHEET

GAME THEORY IN THE SOCIAL SCIENCES

BMEGT439798

I. COURSE DESCRIPTION

1. SUBJECT DATA

Course name

GAME THEORY IN THE SOCIAL SCIENCES

Course code

BMEGT439798

Course type class

Kurzustípusok és óraszámok

<i>Type</i>	<i>Lessons</i>	<u>Type of assessment</u>
Lecture	2	term mark
Practice	0	<u>Number of credits</u>
Laboratory	0	2

Course leader

<i>Name</i>	<i>Position</i>	<i>Email adress</i>
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Dr. Szakadát István	associate professor	szakadat.istvan@gtk.bme.hu
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Organizational unit for the subject

Department of Sociology and Communication

Subject website

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

Language of teaching

magyar - HU

Curriculum role of the subject, recommended semester

Programme: Szabadon választható tárgyak

Subject Role: Szabadon választható

Recommended semester: 0

Programme: Pszichológia mesterszak - Ajánlott szabadon választható tárgyak

Subject Role: Szabadon választható

Recommended semester: 0

Pre-requisites

strong Nincs

weak Nincs

paralell Nincs

exclusive Nincs

1.13 A tantárgyleírás érvényessége / 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.

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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.

Learning outcomes

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.

Ability

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.

Autonomy 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.

Methodology of teaching

Lectures, game theory exercises.

Materials supporting learning

- A tantárgy elvégzéshez 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 evaluation methods

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

Proportion of performance evaluations performed during the diligence period in the rating

- performance assessment: 100

Proportion of examination elements in the rating

- :

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Grading

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

Correction and retake

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

Study work required to complete the course

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 discussed during the semester

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

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Lecturers participating in teaching

Dr. Mészáros József

Approval and validity of subject requirements