SUBJECT DATASHEET

FORMAL MODELS OF COMMUNICATION

BMEGT43BX4K002-00

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name
FORMAL MODELS OF COMMUNICATION

ID (subject code)	BMEGT43BX4K002-00

Type of subject
class

Course types and lessons

Type	*Lessons*
Lecture	2
Practice	0
Laboratory	0

Type of assessment
term mark

Number of credits
3

Subject Coordinator

Name	*Position*	*Contact details*
Dr. Számadó Szabolcs	senior research fellow	szamado.szabolcs@gtk.bme.hu

Educational organisational unit for the subject
Department of Sociology and Communication

Subject website
https://edu.gtk.bme.hu

Language of the subject
magyar - HU, angol - ENG

Curricular role of the subject, recommended number of terms

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: 580501/3/2025 registration number. Valid from: 2025.07.10.

2. OBJECTIVES AND LEARNING OUTCOMES

Objectives

The course uses the tools of information theory and the logic of social interactions to address the processes of message sending, decoding, and interpretation between different agents. It aims to develop students' analytical thinking for a more effective understanding and planning of communication processes.

Academic results

Knowledge

1. Basic knowledge of social science methodologies.
2. Solid knowledge of conceptualization for studying communication and media phenomena.

Skills

1. Research skills.
2. Ability to accomplish scientific literature research.
3. Analytical skills.

Attitude

1. Openness to social change
2. Professional and moral stand.

Independence and responsibility

1. Constructiveness and assertiveness in the context of institutional operation.
2. Independence.
3. Proficiency in professional communication both in oral and written form.

Teaching methodology

lecturing, classroom discussions, presentation

Materials supporting learning

- Rasmusen, E. 2006. Games and infrmation. Blackwell
- Searle, J. 1998. Mind language and society. New York: Basic Books
- Yoely, E & Hoffman, M. 2022. Hidden games.
- Handouts, journal articles

II. SUBJECT REQUIREMENTS

TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

General Rules

Course completion requirements: attendance at classes according to the Code of Education and Examination 1 selected paper from the literature (preparation of a presentation and delivery of the oral paper at an agreed time) active participation in class work completion of research tasks and reporting on them (group or individual work depending on the number of students).

Performance assessment methods

Detailed description of performance assessments conducted during the intensive period: The course emphasizes a creative research approach, translating popular literature into research material incorporating specialized literature into the research plan and creative application of research methods.

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

- **classroom activity**: 10
- **research and presentation**: 90
- **Sum**: 100

Percentage of exam elements within the rating

Conditions for obtaining a signature, validity of the signature

Issuing grades

Excellent	96
Very good	85–95
Good	70–84
Satisfactory	60–69
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
prep. for classes	32
homeworks	28
presentation	2
total	90

Approval and validity of subject requirements

Consulted with the Faculty Student Representative Committee, approved by the Vice Dean for Education, valid from: 07.07.2024.

III. COURSE CURRICULUM

THEMATIC UNITS AND FURTHER DETAILS

Topics covered during the term

Analytical Philosophical Approach to Communication Formal Linguistics Fundamentals of Game Theory Game Theoretic Models of Incomplete
Information Situations Game Theoretic Models of Signals
1 -

Additional lecturers

Dr. Bárány Tibor	egyetemi adjunktus
Dr. Janky Béla	egyetemi tanár

Approval and validity of subject requirements