



SUBJECT DATASHEET

TECHNOLOGY AND SOCIETY

BMEGT41V101

I. SUBJECT DESCRIPTION

1. SUBJECT DATA

Subject name

TECHNOLOGY AND SOCIETY

ID (subject code)

BMEGT41V101

Type of subject

contact lessons

Course types and lessons

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

Type of

assessment

seminar grade

Number of

credits

2

Subject Coordinator

| <i>Name</i> | <i>Position</i> | <i>Contact details</i> |
|-------------|-----------------|------------------------|
|-------------|-----------------|------------------------|

| | | |
|------------------|---------------------|-------------------------|
| Dr. Héder Mihály | associate professor | heder.mihaly@gtk.bme.hu |
|------------------|---------------------|-------------------------|

Educational organisational unit for the subject

Department of Philosophy and History of Science

Subject website

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

Language of the subject

magyar - HU

Curricular role of the subject, recommended number of terms

Direct prerequisites

Strong None

Weak None

Parallel None

Exclusion Technológia és ember (BMEGT41V200) Gólem: esettanulmányok a modern technika és tudomány történetéből (BMEGT41V100)

Validity of the Subject Description

Approved by the Faculty Board of Faculty of Economic and Social Sciences. Valid from 29 April 2020.

2. OBJECTIVES AND LEARNING OUTCOMES

Objectives

The aim of the course is to develop students' appropriate conceptual framework and approach to dealing with the social and philosophical problems of technology. It focuses on presenting the development, risks and opportunities of technology. The topic is supported by case studies. Cases taken from science shed light on general issues of underdetermination. Medical case studies illustrate the difficulties and ethical issues of experimental design. Technical case studies illustrate the potential for technical development, technological confinement, and the difficulty of analyzing risks. The lesson also covers the topic of technological utopias and dystopias.

Academic results

Knowledge

1. Knows the knowledge-generating and problem-solving methods of the main theories of her field.
2. Possesses confident methodological knowledge, understands the possibilities and perspectives of methodological innovation.
3. Knows the broader system of her field, recognizes the relationships with related disciplines, uses the opportunities provided by the wider system and the contexts related to the system.
4. Knows the connections between science, education, society and the media, the different manifestations of this relationship and their consequences.
5. Possesses adequate and sufficient knowledge to orient herself in the various mechanisms of social decision-making.
6. Knows the basics of other related fields (technical, legal, environmental, quality assurance, etc.).
7. Knows the general and specific natural scientific, engineering scientific, management and organizational scientific principles, rules, connections, procedures necessary for the engineering field.
8. She knows the basic facts, connections, boundaries and limitations of the knowledge- and practice system of the technical field.

Skills

1. Confidently uses the vocabulary and the basic scientific concepts of the profession, and the elements of the special vocabulary based on them.
2. Possesses the ability to gain a new perspective, she is able to approach science and its environment with an interdisciplinary approach.
3. In solving her professional tasks, she is able to independently analyze, evaluate, and synthesize conclusions and explanations.
4. She is able to apply a wide range of well-established techniques for the critical analysis and processing of information.
5. She is able to participate in the process of lifelong learning.
6. Plans and organizes her own learning, using the widest range of available resources.
7. Identifies special professional problems with an interdisciplinary approach, explores and articulates the detailed theoretical and practical background needed to solve them.
8. In the course of working, she co-operates with representatives of related fields.
9. Using the learned theories and methods, she explores, systematizes and analyzes facts and basic connections, formulates independent conclusions, critical remarks, and decision-making proposals, and makes decisions in routine and partly unknown - domestic and international - environments.

Attitude

1. Accepts and consistently embraces the diversity of social scientific thinking and credibly represents its conceptual foundations in her narrower and wider environment.
2. She is critical of approaches that seek to limit the openness and diversity of the social sciences in scientific, practical, legal, or political communication scenes.
3. She is confident in her own knowledge and skills, committed to professional ideas.
4. Open to critical self-reflection, various forms of professional development, self-improvement methods of intellectual worldview and strives for self-development in these areas.
5. Seek to solve problems as much as possible in collaboration with others.
6. Open to general and specific knowledge that forms the basis of the technical field.
7. Possesses a problem-centric perspective and problem-solving thinking.

Independence and responsibility

1. In her own professional environment, she develops a historically and politically coherent individual position, which helps the development of herself and her environment.
2. She is independent, constructive and assertive in forms of cooperation inside and outside the institution.
3. In her organizational and institutional activities, she responsibly uses her knowledge and influence to quality work and its recognition.
4. Consciously represents the methods of her own profession and accepts the different methodological peculiarities of other disciplines.
5. Even in unexpected decision-making situations, she independently considers and develops comprehensive professional questions based on specific sources.
6. Based on professional guidance, she considers and develops comprehensive and specific professional issues based on specific sources.
7. Carries out her work independently with a critical evaluation and continuous correction of her activity.

8. Participates responsibly in the development and justification of her professional views.
9. Considers and develops comprehensive and specific professional issues with significant independence and develops them on the basis of specific resources. 1
10. Plans and carries out her activities independently. 1
11. Consciously reflects on her own historical and cultural embeddedness.

Teaching methodology

Lectures, oral and written communication.

Materials supporting learning

- Héder Mihály (2015). A mesterséges intelligencia rövid története. Egyetemi jegyzet a Technológia és Ember c. tárgyhoz.
- Andrew Feenberg (2009): Democratic Rationalization: Technology, Power and Freedom. Readings in The Philosophy of Technology. Rowman and Littlefield Publishers Inc.
- Harry Collins és Trevor Pinch (2007): Dr. Gólem: Útmutató az orvostudományhoz. Budapest: Scolar Kiadó.
- Harry Collins and Trevor Pinch (1998): The Golem: What You Should Know about Science. Cambridge: Cambridge University Press, second edition.
- Harry Collins and Trevor Pinch (1998): The Golem at Large: What You Should Know about Technology. Cambridge: Cambridge University Press.
- Farkas János: A technikaszociológia alapjai
- W. E. Bijker, T.P. Hughes and T. J. Pinch (eds) (1987) The Social Construction of Technological Systems. MIT Press.

II. SUBJECT REQUIREMENTS

TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

General Rules

Assessment of learning outcomes described under section 2.2. Two midterm tests and optional homework (essay

Performance assessment methods

1. General course assessment: Complex assessment of the acquired knowledge and skills concerning knowledge production by two written exams. The test focuses on knowledge elements, interpretation tasks, conclusion tasks and written question answers. Working time is 30-60 minutes depending on the material. Based on all summative academic performance assessments, 50% of the points must be obtained to complete the subject. 2. Partial evaluation – extra work (homework, essay writing): Complex assessment of the acquired knowledge and skills concerning knowledge production by written essay. With the essay, extra points can be obtained which are taken in the course assessment. Points are determined by the lecturer based on the topic of the essay and the complexity.

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

- 1. összegző tanulmányi teljesítményértékelés : 50%
- 2. General course assessment (test): 50%
- Partial evaluation (optional homework): 50%
- total: 100%+

Percentage of exam elements within the rating

Conditions for obtaining a signature, validity of the signature

Issuing grades

| | |
|--------------|-------|
| Excellent | 90 |
| Very good | 85–89 |
| Good | 73–84 |
| Satisfactory | 65–72 |
| Pass | 50–64 |
| Fail | 50 |

Retake and late completion

One assessment can be retaken on the retake week – free of charge for the first time. The grade more favorable will be counted.

Coursework required for the completion of the subject

| | |
|--|----------------|
| participation in contact hours | 14×2=28 |
| preparation for contact hours | 0 |
| preparation for partial performance evaluation | 2×16=32 |
| home works | 0 (opcionális) |
| self-study of designated written material | 0 |
| preparation for exam | 0 |
| total | 60 |

Approval and validity of subject requirements

III. COURSE CURRICULUM

THEMATIC UNITS AND FURTHER DETAILS

Topics covered during the term

In order to achieve the learning outcomes set out in point 2.2, the subject consists of the following thematic blocks. In the syllabuses of the courses announced in each semester, we schedule these thematic elements according to the calendar and other features.

Additional lecturers

Héder-Nádasi Eszter . eszter.nadasi@filozofia.bme.hu

Dr. Paksi Dániel . daniel.paksi@filozofia.bme.hu

Approval and validity of subject requirements

Part I-III of the Subject Form is to be approved by the Head of Department of Philosophy and History of Science named under 1.8.