

# SUBJECT DATASHEET

**History of Science** 

**BMEGT41M300** 

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## I. SUBJECT DESCRIPTION

## 1. SUBJECT DATA

**Subject name** 

History of Science

ID (subject code) BMEGT41M300

Type of subject

contact lessons

Course types and lessonsType ofTypeLessonsassessmentLecture2seminar gradePractice0Number of creditsLaboratory03

**Subject Coordinator** 

Name Position Contact details

Dr. Bíró Gábor István assistant professor biro.gabor@gtk.bme.hu

Educational organisational unit for the subject

Department of Philosophy and History of Science

Subject website

https://www.filozofia.bme.hu/targyak

Language of the subject

magyar - HU; angol - EN

Curricular role of the subject, recommended number of terms

Programme: MSc in Engineering Management

Subject Role: Elective
Recommended semester: 0

**Direct prerequisites** 

Strong None
Weak None
Parallel None

Exclusion BMEGT419709

#### **Validity of the Subject Description**

Approved by the Faculty Board of Faculty of Economic and Social Sciences, Decree No: 580393/12/2023 registration number. Valid from: 31.05.2023.

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## 2. OBJECTIVES AND LEARNING OUTCOMES

#### **Objectives**

The aim of the course is to develop a comprehensive picture of the fundamental changes and approaches of science and philosophy, the nature and significance of science and philosophy.

#### **Academic results**

#### Knowledge

- 1. 1. Knows the basics and methodology of the history of science.
- 2. 2. Knows the connections between science, education, society and the media, the different manifestations of this relationship and their consequences.
- 3. 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. 4. Possesses adequate and sufficient knowledge to orient herself in the various mechanisms of social decision-making.

#### Skills

- 1. 1. Confidently uses the vocabulary and the basic scientific concepts of the profession, and the elements of the special vocabulary based on them.
- 2. 2. Possesses the ability to gain a new perspective, she is able to approach science and its environment with an interdisciplinary approach.
- 3. 3. In solving her professional tasks, she is able to independently analyze, evaluate, and synthesize conclusions and explanations.
- 4. 4. She is able to apply a wide range of well-established techniques for the critical analysis and processing of information.
- 5. 5. She is able to participate in the process of lifelong learning.
- 6. 6. Identifies special professional problems with an interdisciplinary approach, explores and articulates the detailed theoretical and practical background needed to solve them.
- 7. 7. 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. 1. Accepts and consistently embraces the diversity of social scientific thinking and credibly represents its conceptual foundations in her narrower and wider environment.
- 2. 2. Open to critical self-reflection, various forms of professional development, self-improvement methods of intellectual worldview and strives for self-development in these areas.
- 3. 3. Possesses a problem-centric perspective and problem-solving thinking.

#### Independence and responsibility

- 1. 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. 2. She is independent, constructive and assertive in forms of cooperation inside and outside the institution.
- 3. 3. Carries out her work independently with a critical evaluation and continuous correction of her activity.
- 4. 4. Participates responsibly in the development and justification of her professional views.
- 5. 5. Responsible for her analyzes, conclusions and decisions.

#### **Teaching methodology**

lectures

## **Materials supporting learning**

- Tankönyvek / Textbooks
- A tárgyhoz kapcsolódó jegyzet és a bemutatott slide-ok letölthetőek a tantárgy hivatalos elektronikus felületéről / Lecture notes and PPT-slides available on Moodle.
- Dear, Peter. 2019. Revolutionizing The Sciences, 3rd edition, Red Globe Press.
- Grant, Esward. 1996. THE FOUNDATIONS OF MODERN SCIENCE IN THE MIDDLE AGES: THEIR RELIGIOUS, INSTITUTIONAL AND INTELLECTUAL CONTEXTS, CAMBRIDGE UNIVERSITY PRESS: CAMBRIDGE.
- Lindberg, David C. 1992. The Beginnings of Western Science: The European Scientific Tradition in Philosophical, Religious and Institutional Context, 600. B.C. to A.D. 1450, University of Chicago Press: Chicago.

## II. SUBJECT REQUIREMENTS

## TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

#### **General Rules**

The assessment of the learning outcomes (enlisted in point 2.2) are done through two midterm exams, one written assignment (homework)

and (optional) through active participation in class.

#### Performance assessment methods

1. Summative learning assessment: two midterms during the semester or during the exam period. 2. Written assigntment (homework): writing

an essay about a topic previously discussed with and approved by the lecturer. The essay should be in Times New Roman, font size 12, with line spacing 1,5 and should be 3-5 pages in length.

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

obligatory: 33obligatory: 33obligatory: 34

#### Percentage of exam elements within the rating

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

### **Issuing grades**

Excellent	90
Very good	81-90
Good	71-80
Satisfactory	61-70
Pass	50-60
Fail	0-49

#### **Retake and late completion**

One midterm can be (re)done on the retake week, before the exam period.

## Coursework required for the completion of the subject

classwork 28 learning for the midterms 32 homework 30 összesen 90

### Approval and validity of subject requirements

Consulted with the Faculty Student Representative Committee, approved by the Vice Dean for Education, valid from: 08.05.2023.

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## III. COURSE CURRICULUM

## THEMATIC UNITS AND FURTHER DETAILS

## Topics covered during the term

A 2.2. pontban megfogalmazott tanulási eredmények eléréséhez a tantárgy a következő tematikai blokkokból áll. Az egyes félévekben meghirdetett kurzusok sillabuszaiban e témaelemeket ütemezzük a naptári és egyéb adottságok szerint.

### **Additional lecturers**

Dr. Paksi Dániel egyetemi adjunktus paksi.daniel@gtk.bme.hu

Approval and validity of subject requirements

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