



# **SUBJECT DATASHEET**

## **ETHICS FOR ENGINEERS**

**BMEGT41M004**

# I. SUBJECT DESCRIPTION

## 1. SUBJECT DATA

### Subject name

ETHICS FOR ENGINEERS

### ID (subject code)

BMEGT41M004

### 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>
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Dr. Héder Mihály	associate professor	heder.mihaly@gtk.bme.hu
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### 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; 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. Valid from 29 April 2020.

## 2. OBJECTIVES AND LEARNING OUTCOMES

### Objectives

problems and conflicts arising during the various roles and duties an engineer must engage. The subject ● Provides an overview of the different aspects of ethical decision making. ● Introduces the ethical theories applicable during decision making. ● Discusses the methodology of rational decision making. ● Calls attention to the psychological factors distorting decision making and blocking morally acceptable decisions. ● Analyses certain typical problems arising in the field of engineering and discusses the proper approach to solving them. The course provides practical skills and forms attitudes that are indispensable for handling the technical, economic and ethical aspects of decision making together. Ethical considerations are not independent from technical-economic considerations since the latter general have consequences for the former.

### Academic results

#### Knowledge

1. Knows the general and specific characteristics, boundaries, the most important ethical issues of his / her field of specialization, the connection of the field of specialty with related fields of ethics.
2. Knows in detail the contexts and theories of the ethical issues and the its terminology.
3. Knows the specific ethical (knowledge acquisition and problem solving) methods related to his / her field, the ways of elaborating the practical aspects of the theoretical issues.
4. Knows well the ethical vocabulary of his / her field, the peculiarities of written and spoken language communication: the most important forms, methods and techniques in his / her mother tongue and at least one foreign language.
5. Possesses the range of ethical knowledge required to enter doctoral training in this and other fields of study.
6. Knows in detail the legal regulations and ethical norms related to his / her field.

#### Skills

1. Carries out a detailed analysis of the various ethical ideas that constitute the knowledge system of the given field, synthesizes the comprehensive and special contexts and carries out adequate assessment.
2. Identifies professional ethical problems with a multifaceted, interdisciplinary approach, explores and formulates the detailed theoretical and practical background needed to solve them.
3. Applies the ethical theories related to the field and the related terminology in an innovative way when solving problems.
4. Uses the knowledge transfer techniques of his or her field at a high level, and processes the publication sources in English and foreign languages, has the knowledge of effective information research and processing in relation to the ethical issues of his or her field.
5. Prepares independent, scientific summaries and analyzes of certain ethical topics of his or her field of expertise.

#### Attitude

1. Undertake the comprehensive and special relationships, the professional identity, which form the specific character, personal and community role of his or her field of expertise.
2. Authentically conveys the summary and detailed problems of the ethical issues of his or her profession.
3. Makes his or her decision in full strategic decision situations, as well as in unexpected life situations that require a new, complex approach, taking full account of legislation and ethical norms.
4. Takes the initiative to put his or her profession at the service of the community.
5. He or she has a developed professional identity and professionalism, which he or she undertakes towards the professional and wider social community.
6. He or she strives to put the latest achievements in his or her field at the service of self-improvement.
7. In connection with the most important ethical problems of his or her field of expertise, he or she acknowledges and represents the active civic and educational elements that determine them.
8. He or she embraces the principle that continuous professional socialization and personal learning are at the service of the common good.

#### Independence and responsibility

### Teaching methodology

Lectures.

### Materials supporting learning

- PPT-k a tárgy Moodle oldalán. / Slides available on Moodle.
- Arpaly, Nomy (2002). Unprincipled Virtue: An Inquiry Into Moral Agency – Chapter 3. Oxford University Press.
- Arpaly, Nomy & Schroeder, Timothy (2013). In Praise of Desire – Chapter 8-9. Oxford University Press.
- Audi, Robert, 2009, "Moral Virtue and Reasons for Action", Philosophical Issues, 19: 1–20.
- Bratman, Michael.
- Bratman, Michael.
- Doris, J. (1998). Persons, situations, and virtue ethics. *Nous* 32, 504-530.
- Doris, J. (2002). Lack of character: Personality and moral behaviour – Chapter 2 and Chapter 3. Cambridge: Cambridge University Press.
- Levy, Neil (2011). Hard Luck: How Luck Undermines Free Will and Moral Responsibility – Chapter 8. Oxford University Press UK.
- Levy, Neil (2014). Consciousness and Moral Responsibility – Chapter 5-6. Oxford University Press.

- Merritt, M. (2000). Virtue ethics and situationist personality psychology. *Ethical Theory and Moral Practice* 3, 365-383.
- Miller, C. (2013). *Moral character: An empirical theory* – Chapter 1. Oxford: Oxford University Press.
- Miller, C. (2014). *Character and Moral Psychology* – Chapter 1-2. Oxford: Oxford University Press.
- Ridge, Michael.
- Upton, C. (2009). The structure of character. *Journal of Ethics* 13, 175-193.

## II. SUBJECT REQUIREMENTS

### TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

#### General Rules

Assessment of learning outcomes described under section 2.2.

#### Performance assessment methods

1. General course assessment: Complex assessment of the acquired knowledge and skills concerning knowledge production by two written exams and two essay assignments. 2. Partial performance evaluation (homework): complex evaluation of the various competence elements in skill, attitude, independence and responsibility acquired during the course in the form of written essays.

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

- 1. General course assessment (test): 50%
- 2. General course assessment (test): 50%
- partial performance evaluation (homework): 100% (opcionális)
- total: 100%+

#### Percentage of exam elements within the rating

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

#### Issuing grades

Excellent	91-100
Very good	81-90
Good	71-80
Satisfactory	61-70
Pass	50 – 60
Fail	0 - 49

#### Retake and late completion

Only one of the tests are to be retaken on the retake week.

#### 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	32 (opcionális)
self-study of designated written material	0
preparation for exam	0
total	60

#### Approval and validity of subject requirements

Consulted with the Faculty of Student Representative Committee, approved by Emma Lógó, Phd, Vice Dean for Education. Date: ....  
Valid  
from autumn semester 2020/2021.

# III. COURSE CURRICULUM

## THEMATIC UNITS AND FURTHER DETAILS

### Topics covered during the term

### Additional lecturers

Gyarmathy Ákos egyetemi tanársegéd gyarmathy@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