



**SUBJECT DATASHEET**

**PROJECT MANAGEMENT**

**BMEGT20M420**

# I. SUBJECT DESCRIPTION

## 1. SUBJECT DATA

### Subject name

PROJECT MANAGEMENT

### ID (subject code)

BMEGT20M420

### Type of subject

contact course

### Course types and lessons

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

### Type of assessment

term grade

### Number of credits

3

### Subject Coordinator

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

|                      |                     |                             |
|----------------------|---------------------|-----------------------------|
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### Educational organisational unit for the subject

Department of Management and Business Economics

### Subject website

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

### Language of the subject

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: 580251/13/2023 registration number. Valid from: 29.03.2023.

## 2. OBJECTIVES AND LEARNING OUTCOMES

### Objectives

The course introduces students to project management terminology, basic tools and techniques. The curriculum briefly summarizes the knowledge necessary to manage a project within the framework of the subject in a structured way. The course also emphasizes practical solutions.

### Academic results

#### Knowledge

1. Know the modern, theoretically demanding mathematical-statistical and modeling methods of problem recognition, formulation and solution, information collection and processing, as well as their limitations.
2. Know the planning and management rules of the enterprise, economic organization.

#### Skills

1. Formulate independent new conclusions, original ideas and solutions, are able to apply demanding analysis and modeling methods, to develop strategies for solving complex problems, and to make decisions.
2. Are able to identify special professional problems with a multifaceted, interdisciplinary approach, as well as to explore and formulate the detailed theoretical and practical background needed to solve them.
3. Develop an individual position based on one's own analysis and defends it in a debate and are able to develop strategies for solving complex problems, to plan the solution, to make decisions.
4. Participate in management processes, projects, group task solutions, plan, direct, organize, coordinate and evaluate the activity as a leader. Are able to manage and operate their own business with the knowledge they have learned and the experience gained.

#### Attitude

1. Are critical of their own work and the work of their subordinates, they are innovative and proactive in dealing with economic problems. Are open and inclusive to new advances in economics and practice.
2. Strive to improve its knowledge and working relationships, and encourages, helps and supports its employees and subordinates.

#### Independence and responsibility

1. Independently select and apply the relevant problem-solving methods in areas of organizational policy, strategy and management.
2. Take responsibility for its own work, the organization it manages, its business, and its employees.
3. Perform economic analysis, decision preparation and consulting tasks independently.
4. Involve in research and development projects, mobilize their theoretical and practical knowledge and skills in the project group in an autonomous way, in cooperation with the other members of the group..

### Teaching methodology

Lectures, computational exercises, case studies, guest speakers, optional homework assignments.

### Materials supporting learning

- Sebestyén Z.: Projektmenedzsment, oktatási segédlet, 2018
- Egyéb, az oktató által kiadott oktatási segédletek (letölthető: <https://edu.gtk.bme.hu>)

## II. SUBJECT REQUIREMENTS

### TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

#### General Rules

The assessment of the learning outcomes set out in 2.2 is based on two written mid-terms (summative assessment), a case study (partial assessment) and classroom activity.

#### Performance assessment methods

A. Performance assessment: a written examination, typically consisting of computational exercises, and to a lesser extent theoretical questions and/or test questions, to assess the practical application of the theory. B. Performance assessment: written assignment (case study) to be submitted and presented to assess the practical application of the subject matter. C. Classroom activity.

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

- 1. partial performance measurement (assignment, case study): 10
- 2. classroom activity: 10
- 1. summary performance measurement : 40
- 2. summary performance measurement: 40
- total: 100

#### Percentage of exam elements within the rating

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

#### Issuing grades

|              |       |
|--------------|-------|
| Excellent    | 94    |
| Very good    | 90–94 |
| Good         | 75–89 |
| Satisfactory | 60–74 |
| Pass         | 50–59 |
| Fail         | 0–49  |

#### Retake and late completion

Based on the Code of Studies

#### Coursework required for the completion of the subject

|  |    |
|--|----|
| participation in contact classes                         | 28 |
| mid-term preparation for internships                     | 0  |
| preparation for performance evaluations                  | 20 |
| homework preparation                                     | 30 |
| independent acquisition of designated written curriculum | 12 |
| exam preparation   | 0  |
| total  | 90 |

#### Approval and validity of subject requirements

# III. COURSE CURRICULUM

## THEMATIC UNITS AND FURTHER DETAILS

### Topics covered during the term

The learning outcomes of 2.2 can be achieved by studying the following areas and topics

- 1 Characteristics of project phases, relationship between the project life cycle and the product life cycle.
- 2 Processes, process groups.
- 3 Project Success.
- 4 Main documents: project definition document, preliminary project scope description, project management plan.
- 5 Life cycle analysis.
- 6 Participants, roles.
- 7 Organizational issues: personnel management plan, organizational forms, human resource planning tools.
- 8 Network-based planning: basics of graph theory, work breakdown structure, dependency definition, predecessor and successor activity lists, drawing and analysis of networks.
- 9 CPM
- 10 PERT
- 11 MPM
- 12 Estimation: errors, rules, accuracy, three levels, general techniques.
- 13 Resources: load, S-curve, resource allocation.
- 14 Tracking: EVM, ES.
- 15 Risk: qualitative and quantitative risk analysis.
- 16 Contract types.
- 17 Tendering.
- 18 Project portfolio management: definition, steps, ranking.

### Additional lecturers

### Approval and validity of subject requirements