# SUBJECT DATASHEET

# FOUNDATIONS TO RISK MANAGEMENT

# BMEGT35M101

# I. SUBJECT DESCRIPTION

## 1. SUBJECT DATA

**Subject name**
FOUNDATIONS TO RISK MANAGEMENT

**ID (subject code)** BMEGT35M101

**Type of subject**
contact lessons

**Course types and lessons**

| *Type* | *Lessons* |
|---|---|
| Lecture | 4 |
| Practice | 0 |
| Laboratory | 0 |

**Type of assessment**
exam grade

**Number of credits**
5

**Subject Coordinator**

| *Name* | *Position* | *Contact details* |
|---|---|---|
| Dr. Bethlendi András | hab. associate professor | bethlendi.andras@gtk.bme.hu |

**Educational organisational unit for the subject**
Department of Finance

**Subject website**

**Language of the subject**
angol - ENG

**Curricular role of the subject, recommended number of terms**
Programme: **Master of Science Program in Finance**
Subject Role: **Compulsory**
Recommended semester: **0**

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**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: 580483/15/2026 registration number. Valid from: 24.06.2026.

# 2. OBJECTIVES AND LEARNING OUTCOMES

**Objectives**

Business decisions are based on significant business uncertainty and risk. The aim of teaching the subject is that students get to know the basic concept of risk management. What types of risks do companies and financial institutions face? Risk management, and more broadly, how responsible corporate governance can effectively manage these, thereby increasing the value of the organization. Students will get an idea of the basic methods and best practices of risk management, with emphasis on value at risk; expected shortfall; stress test; and scenario analysis. Market risks are presented through option and bond pricing models (what risks these financial instruments are sensitive to). We describe the credit risk and its two components: expected and unexpected loss. We also cover operational and sovereign risks. In developing the topic, we made great efforts to cover the first and fourth topics of the international FRM (Financial Risk Manager) exam (Foundations of Risk Management; Valuation and Risk Models). In the course of education, we keep in mind the objective that, as a result of the learning process, the student should be able to apply the acquired theory in practice.

**Academic results**

Knowledge

1. the different types of risk;
2. basic risk management methods;
3. modern corporate governance systems, in which the risk management function also plays a role;
4. risk mitigation techniques.

Skills

1. plan and organize independent learning,
2. comprehend and use the professional literature of the topic,
3. Beyond a solid foundation acquired in the field of finance theory, the student is also well-versed in specialised topics that enable students to find employment within the broader financial sector (banks, insurance companies, brokerage firms, investment fund and asset managers, as well as their supervisory authorities and the central bank). (EFMD-ILO connections: Finance - Knowledge (KKK) - T6 - ILO 1: Analytical thinking)
4. perform calculations to support decision making
5. Formulates independent new conclusions, original ideas, and solutions, is capable of applying sophisticated analytical and modelling methods, developing strategies aimed at solving complex problems, making decisions in a changing domestic and international environment, as well as within organisational culture. (EFMD-ILO connections: Finance - Skills (KKK) - K1 - ILO 5: Digital proficiency)

Attitude

1. is open to learn about and adapt innovations in finance,
2. collaborates with their instructors and peers during the learning process,
3. gains knowledge and information,
4. makes use of ICT tools.

Independence and responsibility

1. is open to accept reliable critical remarks,
2. collaborates with other students in performing assignments during the learning process,
3. is capable of making informed jusgements in the financial (risk) decision-making,
4. can weigh the significance of their responsibilities and foresee the consequences of their decisions.

**Teaching methodology**

Lectures, verbal and written communication, use of ICT tools and techniques, optionally independent and group assignments.

**Materials supporting learning**

- Philippe Jorion: Value at Risk, The New Benchmark for Managing Financial Risk

# II. SUBJECT REQUIREMENTS

## TESTING AND ASSESSMENT OF LEARNING PERFORMANCE

**General Rules**

Assessment of the learning outcomes described under 2.2. is based on the end-term exam. The results of online test is taken into account in grading.

**Performance assessment methods**

EFMD-ILO connection ILO 5: Testing methodological and financial knowledge with ICT tools. ILO 1: Supervised application of financial
models, calculations, and analysis methods in the context of a written exam A. Detailed description of mid-term performance assessments Online
tests at the end of classes B. Detailed description of examination performance assessments There will be a written exam in the examination period. The part of the curriculum on which the assessment is based is determined by the lecturer of the subject. The time available for the exam will be announced during the semester.

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

- **Online tests (optional)**: 15
- **Total**: 15

**Percentage of exam elements within the rating**

- **Exam in the exam period**: 100
- **Online tests at the end of classes from mid-term performance assessments**: 15
- **Total**: 100

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

Attendance at lectures is a condition for obtaining a signature. The condition for writing the exam is to obtain a signature. The obtained signature is valid for the period according to the TVSZ.

**Issuing grades**

| | |
|---|---|
| Excellent | 91 |
| Very good | 86-90 |
| Good | 71-85 |
| Satisfactory | 61-70 |
| Pass | 51-60 |
| Fail | 50 |

**Retake and late completion**

Three exam opportunities will be organized within the exam period. There is no other possibility of a retake. End-of-class tests cannot be retaken.

**Coursework required for the completion of the subject**

| | |
|---|---|
| participation on contact lessons | 56 |
| preparing for the exam | 94 |
| total | 150 |

**Approval and validity of subject requirements**

Consulted with the Faculty Student Representative Committee, approved by the Vice Dean for Education, valid from: 04.05.2026.

# III. COURSE CURRICULUM

## THEMATIC UNITS AND FURTHER DETAILS

**Topics covered during the term**

Subject includes the topics detailed in the course syllabus to ensure learning outcomes listed under 2.2. can be achieved. Timing of the topics will be arranged by the calendar or other circumstances in each semester.

1 Risk management systems, basic types of risk, value-creating risk management
2 Role of risk management in corporate governance, risk management errors
3 Methods of risk measurement: VaR (Value-at-Risk), Conditional VaR, Expected Shortfall
4 VaR in practice
5 Derivative VaR
6 Credit risk management
7 Operational risk management
8 Liquidity risk management
9 Risk-based regulatory capital requirement
10 Experiences of individual and systemic financial disasters
11 Basics of portfolio theory
12 From SD to relevant risk
13 Country risk management
14 Insurance risks
15 Data quality and risk reports
16 Risk analyis (Scenario analysis and stress tests)

**Additional lecturers**

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**Approval and validity of subject requirements**