***Quantitative Methods of Investment Analysis***

***B 1.2.5.1.2***

**Degree:** Master

**Year:** 1

**Semester:** Fall

**General workload:** 3 ECTS credits, 108 hours

**Goals of the course**

To acquire knowledge of financial market operations and basic skills needed for financial planning related to pricing of financial instruments.

**Key didactic units**

Financial instruments with fixed payments. Interest calculation. Interest rates and inflation. Payment flows. Discounting. Internal rate of return. Revenue. Bond. Yield to maturity. Duration. Portfolio analysis. The Markowitz Model. Optimal portfolio in the presence of a risk-free interest rate. CAPM. Factor models.

**Place of the discipline within the curriculum**

The course is an elective in the curriculum of program 38.04.01 in Economics.

**Upon completing the course, the students should:**

*Know:*

The basic classes and types of mathematical models of investment analysis.

*To be able to:*

Use mathematical methods when solving applied problems, to assess investment decision efficiency in the presence of uncertainty and risk.

*Have:*

The skills needed to apply mathematical tools to investment decision-making process.

**Course structure:** lectures, practicals, tests.

**Summative assessment:** pass/fail examination