***Financial Mathematics***

***B 1.1.2.5***

**Degree:** Bachelor

**Year:** 3

**Semester:** Fall

**General workload:** 4 ECTS credits, 144 hours

**Goals of the course**

- To acquire basic knowledge of mathematical methods used in financial mathematics, conceptual theoretical basis and provide practical training that is necessary for understanding the theory of decision- making based on financial analysis.

- To acquire basic knowledge of mathematical methods used in financial mathematics, mathematical method use skills needed for solving theoretical and applied financial problems

**Key didactic units**

Fundamentals of classical financial mathematics. Simple and compound interest. Cashflows and revenues. Bonds and their main characteristics. Portfolio analysis. The Markowitz Model.

**Place of the discipline within the curriculum**

The course is included into the module of mathematics and computer science within the curriculum of program 38.03.01 in Economics.

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

Know the financial mathematics basic concepts, calculation techniques and models.

To be able to solve standard financial mathematics problems, build and examine mathematical models, apply mathematical methods to solving applied problems.

Have the skills needed to apply mathematical tools to solving financial mathematics problems.

**Course structure:** lectures, practicals, independent student work, tests

**Summative assessment:** examination