***Decision-Making Methods***

***B 1.2.4.1***

**Degree:** Bachelor

**Year:** 2

**Semester:** Fall

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

**Goals of the course**

To acquire theoretical knowledge and practical skills in formalizing the decision-making process and in using mathematical methods in order to choose the optimal decision-making scenario.

**Key didactic units**

 General characteristics of decision-making methods. Decision-making in case of certainty. Linear programming and nonlinear programming. Decision-making and a conflict of interests. Game theory elements. Maximin and minimax. Games with nature. Decision-making in case of uncertainty and risk.

**Place of the discipline within the curriculum**

The course is part of the university electives (program in Economics).

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

Know key classes and types of mathematical models used in the decision-making process.

Be able to use mathematical methods and to assess decision-making process efficiency in the presence of uncertainty and risk.

*Have* a culture of mathematical thinking and tools needed to examine and assess decision-making process efficiency.

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

**Summative assessment:** pass/fail examination