DESCRIPTION OF A STUDY COURSE – SYLLABUS

Title of a course	Quantitative Methods for Entrepreneurs				
Study programme	Specialist professional graduate study Entrepreneurship				
Status of a course	Obligatory				
Year of study	1	Semester (Winter/Summer)	S	ECTS credits	6

Goals of a course

The aim of course is to get to know and teach students how to use methods that solve some business decision problems and methods for analyzing and optimizing them.

Conditions for enrolling course

No conditions

Learning outcomes on a level of a study programme which includes course

Outcome 1: Recommend solutions for business operations improvement by analysing business indicators and reports.
Outcome 3: Apply management and marketing tools in managing business processes.
Outcome 6: Apply methodology for planning and controlling the implementation of various plans.
Outcome 8: Propose ways to manage human and other business resources.
Outcome 9: Apply methodology of professional and scientific research work in various business situations.

Expected learning outcomes on a level of a course

1. Explain concepts from the fundamentals of linear programming and fundamentals of transportation problem.
2. Solve problems from the fundamentals of linear programming and fundamentals of transportation problem.
3. Explain the basic economic functions and basics of regression and correlation analysis.
4. Solve problems from basic economic functions and basics of regression and correlation analysis.

Content of a course

Basics of econometrics. Concept. Variables and functions. Simple linear regression. Multiple linear regressions. Stock model. Network planning and management. Linear programming. The transport problem. Linear fractional programming. Multi-objective linear programming. Input - output analysis. Elements of game theory. Analytical hierarchy process. Methods of decision trees. Fundamentals of graph theory. Integer programming. Data analysis for business analysis. Network programming. Queuing models.

Teaching modes	☒ lectures	☒ individual assignments
	☐ auditory exercises	☐ multimedia and network
	☒ seminars and workshops	☐ laboratory
	☐ distance learning	☐ supervisor's work
	☐ field classes	☐ other _____

Grading, evaluation and monitoring of students' work continuously during lectures and exams

Grading is based upon evaluation course's learning outcomes' adoption. Grading is performed continuously during lectures and/or during exam, in compliance with the provisions of Regulation on the assessment of students.