Title:	**Mathematics in economics**
Lecture hours:	20
Study period: **(summer/winter)**	Summer and winter semester
Number of credits:	
Assessment methods:	Exam (test). Assessment criteria: The percentage of points to obtain grades: $[0\% - 50\%) - 2.0$ $[50\% - 65\%) - 3.0$ $[65\% - 75\%) - 3.5$ $[75\% - 85\%) - 4.0$ $[85\% - 90\%) - 4.5$ $[91\% - 100\%] - 5.0$
Language of instruction:	English
Prerequisites:	none
Course content:	The main purpose of this course is the acquainting students with the introduction to higher mathematics and its applications in economics. The course consists of two parts: theoretical introduction and exercises. The main topics: • Sequences and limits of sequences. • Functions and limits of functions. • Functions of several variables with examples. • The differential calculus. • Vector spaces. • Matrix algebra. • Linear equations. • Illustration of the application in economic analysis. After completing this course: - student has the basic knowledge in the selected area of mathematical analysis and elementary linear algebra, - student can apply selected mathematical methods in economy.
Learning outcomes:	Knowledge: K1: Student understands the role of mathematics in the economic analysis and research K2: Student knows the basic mathematical methods to solve economic problems Skills: S1: Student applies selected mathematical tools and methods to make economic analysis Social competences:

	SC1: Working independently the student develops his/her knowledge and skills of mathematics to solve the economic problems
Name of lecturer:	PhD Ewa Dziawgo
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Literature:	1.Chiang A.C., Wainwright K., Fundamental Methods of Mathematical Economics, McGraw-Hill, 2005. 2. Pemberton M., Mathematics for Economists, Manchester Univeristy Press, 2015. 3. Allen R.G.D., Mathematical Analysis for Economists, Macmillan and Co, 2008