COURSE DESCRIPTION CARD - SYLLABUS

Course name
Mathematics [N1Log2>MAT2]

Course

Field of study
Logistics

Year/Semester
1/2

Area of study (specialization)
–

Profile of study
general academic

Level of study
first-cycle

Course offered in
Polish

Form of study
part-time

Requirements
compulsory

Number of hours

Lecture
8

Laboratory classes
0

Other
0

Tutorials
18

Projects/seminars
0

Number of credit points

4,00

Coordinators

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Lecturers

Prerequisites

The basic knowledge obtained in the first semester. The ability to think logically. The ability to describe simple mathematical problems.

Course objective

The acquisition and consolidation of examples of basic mathematical concepts and acquire the ability to use the mathematical apparatus

Course-related learning outcomes

Knowledge:
1. Student knows the basic issues of mathematics and statistics in the study of the structure of economic and logistic phenomena [P6S_WG_04]

Skills:
1. Student is able to use appropriate experimental and measurement techniques to solve a problem in mathematics and statistics, including computer simulation in the field of logistics and its detailed issues and supply chain management [P6S_UW_03]

2. Student is able to select appropriate tools and methods to solve a problem within mathematics and use them effectively [P6S_UO_02]

Social competences:
1. Student is aware of initiating activities related to the formulation and transfer of information and cooperation in the society in the area of logistics [P6S_KO_02]

Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Lecture: Knowledge acquired as part of the lecture is verified on the basis of a 90-minute "zero exam" on the 15th lecture. Students can also proceed to the exam during the exam session. Exam includes material from both semesters.
Tutorials: Skills acquired on tutorials are verified on the basis of two 75-minutes tests, which are realized on 7th and 14th meetings.

Programme content

Lecture: Integral calculus of functions of one variable. Ordinary differential equations.
Tutorials: practial tasks.

Course topics

Lecture: Integral calculus of functions of one variable: indefinite integral, definite integral, applications of definite integral, improper integral and numerical series. Ordinary differential equations - introduction.
Tutorials: practial tasks.

Teaching methods

Lecture: oral presentation with examples and formulas, which are presented using a visualizer.
Tutorials: presentation of exemplary tasks on the blackboard and individual solving of similar examples by students - practical exercises.

Bibliography

Basic:
1. Foltyńska I., Szafrański Z., Ratajczak Z, Matematyka, część I i II, Wydawnictwo Politechniki Poznańskiej, Poznań 2004.

Additional:
1. Krysicki W., Włodarski L., Analiza matematyczna w zadaniach 1, Wydawnictwo Naukowe PWN, Warszawa, 2013.
2. Leja F., Rachunek różniczkowy i całkowy, Państwowe Wydawnictwo Naukowe, Warszawa, 1978.

Breakdown of average student's workload

	Hours	ECTS
Total workload	100	4,00
Classes requiring direct contact with the teacher	28	1,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	72	2,50