

# MATHEMATICS

## COURSE SYLLABUS ABSTRACT

6-05-1042-01 Transport logistics  
(speciality code and name)

Regional transport and logistics system  
(concentration)

	STUDY MODE	
	full-time	part-time (shortened program)
Year	1	1
Semester	1,2	1,2
Lectures, hours	68	16
Practical classes (seminars), hours	68	16
In-class test (semester, hours)		1, (2 h) 2, (2 h)
Exam, semester	1,2	1,2
Contact hours	136	36
Independent study, hours	188	288
Total course duration in hours / credit units	324/9	324/9

1. Course outline: linear algebra and analytical geo-metric, vector algebra, introduction to mathematical analysis, differential and integral calculus of functions of one and many variables, differential equations, number series, probability theory and elements of mathematical statics.

2. Course learning outcomes.

Upon completion of the course, students will be expected to:

know:

- methods of mathematical analysis, analytical geometry, linear algebra, solutions of differential equations;
- basic concepts and methods of probability theory and mathematical statistics;
- basic mathematical methods for solving engineering problems;

be able to:

- solve mathematically formalized problems of linear algebra and analytic geometry;
- differentiate and integrate functions, solve differential equations;
- set and solve probabilistic problems and perform statistical processing of experimental data;
- to build mathematical models of physical processes.

to possess a skill:

- creative analytical thinking;
- to independently generate and implement new ideas and methods.

3. Competencies

Generated competencies codes	Names of competencies to be formed
BPC-1	Master basic concepts and methods of linear algebra, analytical geometry, mathematical analysis, probability theory and mathematical statistics for processing and analyzing data and performing engineering, economic and logistic calculations.

4. Requirements and forms of midcourse evaluation and summative assessment

Current certification: PIT - protection of an individual task; ICTF – an intermediate control of the time frame. Intermediate attestation: exam. Assessment of the level of knowledge of the student and the formation of competencies under all forms of control is carried out on a ten-point scale.