

MATHEMATICS

COURSE SYLLABUS ABSTRACT of higher education institution speciality

Specialty 1-27 02 01 Transport logistics (by directions)

Specialty direction 1-27 02 01-01 Transport logistics (road transport)

| | STUDY MODE | | |
|---|------------|----------------------|-------------------------------------|
| | full-time | part-time | part-time (shortened program) |
| Year | 1 | 1 | 1 |
| Semester | 1,2 | 1,2 | 1,2 |
| Lectures, hours | 84 | 20 | 20 |
| Practical classes (seminars), hours | 84 | 20 | 18 |
| Laboratory classes, hours | 16 | 4 | 4 |
| In-class test (semester, hours) | | 1, (2 h) 2, (2 h) | 1, (2 h) 2, (2 h) |
| Exam, semester | 1,2 | 1,2 | 1,2 |
| Contact hours | 184 | 48 | 46 |
| Independent study, hours | 152 | 288 | 290 |
| Total course duration in hours / credit units | 336/9 | 336/9 | 336/9 |

1. Course outline.

The purpose of the educational discipline is: the formation of the student's personality, the development of his intellect and ability for logical and algorithmic thinking; education of a sufficiently high mathematical culture; training in basic mathematical methods necessary for the analysis and modeling of devices, processes and phenomena in the search for optimal solutions for the implementation of scientific and technological progress and the selection of the best ways to implement these solutions, methods for processing and analyzing the results of numerical and field experiments.

2. Course learning outcomes. Upon completion of the course, students will be expected to:

- know: methods of mathematical analysis, analytical geometry, linear algebra, solving differential equations; basic concepts and methods of probability theory and mathematical statistics; algorithms for solving linear programming problems;
- be able: solve mathematically formalized problems of linear algebra and analytical geometry; differentiate and integrate functions, solve ordinary differential equations and systems of differential equations; set and solve probabilistic tasks and perform statistical processing of experimental data; solve linear programming problems;
- possess: methods of mathematical analysis, analytical geometry, linear algebra, solving differential equations; methods of probability theory and mathematical statistics; algorithms for solving linear programming problems.

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

| № | Type of valuation funds | Number of sets |
|---|--|----------------|
| 1 | Questions for the exam | 2 |
| 2 | examination cards | 2 |
| 3 | Individual tasks | 6 |
| 4 | Control tasks for performance of control works | 10 |
| 5 | Knowledge Assessment Test (E) Programs | 1 |