

MATHEMATICS

(course title)

COURSE SYLLABUS ABSTRACT

of higher education institution

Specialty 1- 53 01 05 "Automated electric drives"

	STUDY MODE		
	full-time	part-time	part-time (shortened program)
Year	1	1	1
Semester	1, 2	1, 2	1, 2
Lectures, hours	118	16	12
Practical (seminar) classes, hours	152	24	14
In-class test (semester, hours)		1(2 hours), 2(2 hours)	1(2 hours), 2(2 hours)
Exam, semester	1, 2	1, 2	1, 2
Contact hours	270	44	30
Independent study, hours	246	472	486
Total course duration in hours / credit units	516 / 15,0		

1. Course outline

Linear algebra and analytic geometry, introduction to mathematical analysis, differential calculus of functions of one variable, differential calculus of functions of many variables, integral calculus of functions of one variable, ordinary differential equations, numerical and functional series, fourier series and integral, integral calculus of functions of many variables, elements of the theory of functions of a complex variable, elements of operational calculus, probability theory, basic concepts and methods of mathematical statistics.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know: basic concepts, definitions and methods of linear and vector algebra, analytical geometry, differential and integral calculus, the theory of numerical and functional (power) series, the theory of differential equations and their systems, and probability theory;

be able to: analyze and apply theoretical knowledge in solving typical educational problems and tasks of increased complexity, make reasonable conclusions;

possess: mathematical tools of the academic discipline in solving practical problems that may arise in professional activities.

3. Competencies

BOD-1: be able to use the mathematical apparatus of algebra, analytical geometry, differential and integral functions to solve applied engineering problems.

BOD-2: be able to use the mathematical apparatus of differential equations, series, integral functions of several variables to solve applied engineering problems.

4. Requirements and forms of midcourse evaluation and summative assessment

Intermediate certification includes written tests and defense of individual tasks, current certification - an exam. Intermediate certification allows you to score up to 60 points per semester, the current one - up to 40 points.

The final score is determined according to the table.

Evaluation	10	9	8	7	6	5	4	3	2	1	0
Points	100-94	93-87	86-80	79-72	71-65	64-58	57-51	50-41	40-17	16-1	0