MATHEMATICS

(course title)

COURSE SYLLABUS ABSTRACT of higher education institution speciality

<u>1-53 01 01 Automation of technological processes and production</u> (speciality code and name)

	STUDY MODE
	full-time
Year	1, 2
Semester	1, 2, 3
Lectures, hours	136
Practical classes (seminars), hours	136
In-class test (semester, hours)	_
Pass/fail, semester	_
Exam, semester	1, 2, 3
Contact hours	272
Independent study, hours	160
Total course duration in hours / credit units	432 / 12

(specialisation code and name)

1. Course outline: linear algebra and analytic geometry, vector algebra, introduction to mathematical analysis, differential and integral calculus of functions of one and many variables, differential equations, numerical and functional (power) series, probability theory and elements 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, analytic geometry, differential and integral calculus, theory of numerical and functional (power) series, theory of differential equations, probability theory;

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

possess: discipline tools in solving practical problems that may arise in the study of natural science disciplines and in solving applied engineering and construction problems.

3. Competencies.

BPC-1. Be able to use the basic laws of the natural sciences in professional activities.

SC-15. Possess the basic methods, methods and ways of obtaining, storing, processing information, skills in working with a computer as a means of managing information, using computer networks.

4. Requirements and forms of midcourse evaluation and summative assessment.

Current assessment: PIT - protection of an individual task; CW - control work; ICP - intermediate control of progress. Intermediate assessment: exam. Assessment of the level of knowledge of the student and the formation of competencies in all forms of control is carried out on a ten-point scale.