

# M A T H E M A T I C S

(name of the discipline)

## ANNOTATION

### TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

#### Specialty 1-70 02 01 "Industrial and civil construction"

	Form of higher education		
	Full-time (daytime)	Correspondence	Correspondence abbreviated
Course	1, 2	1, 2	1
Semester	1, 2, 3	1, 2, 3	1, 2
Lectures, hours	102	20	16
Practical lessons, hours	84	16	12
Classroom examination (semester, hours)		1 (2 hours) 2 (2 hours) 3 (2 hours)	1 (2 hours) 2 (2 hours)
Test (report), semester	1	3	2
Exam, semester	2, 3	1, 2	1
Classroom hours per academic discipline	186	42	32
Independent work, hours	246	390	400
Total hours per academic discipline / credit units	432/12		

1. Brief content of the discipline: 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. As a result of mastering the academic discipline, the student must:

**know** – the basic concepts, definitions and methods of linear and vector algebra, analytic geometry, differential and integral calculus, the theory of numerical and functional (power) series, the theory of differential equations, the theory of probability;

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

**own** – mathematical provisions and tools of the discipline in solving practical problems that may arise in the study of natural science academic disciplines and in solving applied engineering and construction problems.

3. Formed competencies. BOD-1 – apply the knowledge of natural science disciplines to solve applied engineering and construction problems.

4. Requirements and forms of current and intermediate certification. Intermediate certification: IHW – individual homework; CW – control work; ICP – intermediate control of progress. Current certification: exam, test. The development of this academic discipline will ensure the formation of the required competence of BOD-1.