

# **DISCRETE MATHEMATICS**

## **COURSE SYLLABUS ABSTRACT of higher education institution**

**Specialty 1-36 01 03 "Technological equipment engineering production"**

	STUDY MODE
	full-time
Year	2
Semester	3
Lectures, hours	34
Practical classes (seminars), hours	16
Course paper, semester	3
Contact hours	50
Independent study, hours	58
Total course duration in hours / credit units	108/3

### 1. Course outline

Elements of mathematical logic, griffon theory, set theory, types of mathematical models, methods of linear and dynamic programming.

### 2. Course learning outcomes

Upon completion of the course, students will be expected to

know: basic concepts, definitions and methods of set theory, mathematical logic, graph theory, methods of linear and dynamic programming, basic methods of setting, solving and studying mathematical models of applied problems.

be able to: build mathematical models; compare and compare mathematical models; choose the appropriate mathematical method and algorithm for solving the problem;

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

### 3. Competencies.

BPK - 2 – to know the elements of mathematical logic, the theory of griffins, the theory of sets, the types of mathematical models, examples and possibilities of their application in solving technological and design problems of mechanical engineering.

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

Intermediate certification: 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 BPK-2.