

GRAPH THEORY
(course title)
ANNOTATION
TO THE CURRICULUM OF THE DISCIPLINE

Specialty 1-53 01 02 «Automated information processing systems»

	The form of higher education		
	Full-time (full-time)	Correspondence*	Correspondence shortened*
Course	2	2	2
Semester	4	4	3
Lectures, hours	34	8	8
Lab exercises, hours	16	4	4
Credit, semester	4	4	3
Classroom hours in the academic discipline	50	12	12
Individual work, hours	58	96	96
Total hours in the discipline / credits	108/3,0		

1. Summary of the content of the discipline

Teaching students the basic methods of graph theory to solve problems from programming, network administration, information flow, planning, design and management of automated systems.

2. Learning outcomes

As a result of studying the discipline the student should:

know: basic concepts and facts of graph theory; relations between main graph-theoretic parameters; structural properties of special classes of graphs; problematics and algorithmic aspects of vapor combinations; applied aspects of graph Hamiltonianity;

be able to: use basic notions and facts of graph theory and establish links between them; evaluate basic numerical parameters of graphs; identify key structural characteristics of graphs: connectedness, bipartitionality, Eulerianity, planarity; evaluate the complexity of algorithmic solutions of theoretical graph problems;

have: basic algorithms of graph analysis; skills of construction and analysis of theoretical graph models of applied problems.

3. Competencies to be formed

Mastering this discipline should ensure the formation of the following competencies:
BPC-17: Use graph models to solve applied problems.

4. Requirements and forms of current and intermediate attestation

Protection of laboratory works, intermediate control of progress, credit.