

DATABASES AND DATABANKS

(name of a discipline)

COURSE SYLLABUS ABSTRACT of higher education institution speciality

1 – 53 01 02 – "Automated information processing and management systems"
(speciality code and name)

	Form of higher education		
	Full-time (day)	Part-time	Part-time reduced
Year	3	3,4	3
Semester	5, 6	5,6,7	4
Lectures, hours	128	14	
Practical classes, hours			2
Laboratory classes, hours	64	16	
In-class test (semester, hours)		6 term (2 h)	
Course project, semester	6	7	4
Pass/fail, semester	5	5	
Exam, semester	6	6	
Contact hours	192	30	2
Independent study, hours	158	320	38
Total course duration in hours / credit units	350/9,5	350/9,5	40 / 1

1. Course outline

The purpose of the discipline "Databases and databanks" is the formation of professional competencies for working with modern technologies for creating and operating databases and data banks as part of automated information processing systems implemented in various fields of science, technology and economics.

2. Course learning outcomes

Upon completion of the course, students will be expected to know:

the basic principles of databases organization; SQL language; ways to work with relational databases; principles of database modeling and design; ways to implement distributed and parallel data processing; the capabilities of modern DBMS for building of decision support systems.

be able to:

practically create and administer databases; create an interface with databases; install and configure server and client database applications.

possess:

methods of programming systems based on databases; databases design skills.

3. Competencies

AK-1: Be able to apply basic scientific and theoretical knowledge to solve theoretical and practical problems

AK-2: Master systematic and comparative analysis.

AK-3: Master research skills.

AK-4: Be able to work independently.

AK-5: Be able to generate new ideas (have creativity).

AK-10: To use the basic laws of natural science disciplines in professional activity

SLK-2: Be capable of social interaction

SLK-3: Have the ability to interpersonal communication

SLK-5: Be capable of criticism and self-criticism

SLK-6: Be able to work in a team

PC-3: Perform tasks for automation of information processing

PC-4: To prepare technical tasks for software development

PC-5: Conduct infological and datalogical database design

PC-13: Perform reconfiguration of databases and system software under the conditions of application

PC-18: To advise consumers on the choice of effective methods for solving problems related to the presentation, storage, display, transmission and analytical processing of information

4. Requirements and forms of midcourse evaluation and summative assessment

When studying the discipline, a modular rating system for assessing students' knowledge is used. When studying various topics of the course, the following forms and methods of conducting classes are used: traditional, multimedia, problem / problem-oriented, using computers.