Fundamentals of algorithmization and programming

(course title)

COURSE SYLLABUS ABSTRACT

6-05-0611-01 Information systems and technologies, 6-05-0611-04 Electronic economy

(speciality code and name)

	STUDY MODE	
	full-time	part-time(6-05-0611-04)
Year	**1**	**1-2**
Semester	1,2	1,2
Lectures, hours	50	14
Laboratory classes, hours	50	8
Practical classes (seminars), hours		
Course paper (for 6-05-0611-01), semester	2	
Exam, semester	1,2	1,2
In-class test (semester, hours)		1,2 (4 ч.)
Contact hours	100	26
Independent study, hours	116	190
Total course duration in hours / credit units	216/6	

1 The purpose of the discipline is the formation of students' basic knowledge of programming, instilling in students the skills of setting, preparing and solving problems at a high level, preparation as a fundamental basis for studying additional disciplines.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know:

– basics of algorithmization

– basic constructions of high-level languages;

– terminology;

– principles of software creation;

– software development technologies;

– basic data structures;

– basic concepts of object-oriented programming;

be able to:

- create algorithms;

– use the basic constructions of high-level languages;

– to implement algorithms in the form of programs in a high-level language;

have the skill:

– methods and tools for creating software;

– skills of independent development, debugging, testing and documentation of the program.

3. Competencies

УК-2: Solve standard tasks of professional activity based on the use of information and communication technologies

- for specialty 6-05-0611-01:

БПК-10: Apply the main methods of algorithmization, methods and means of obtaining, storing, processing information in solving professional problems

- for specialty 6-05-0611-04:

БПК-6: Apply the main methods of algorithmization, methods and means of obtaining, storing, processing information in solving professional problems

4. Requirements and forms of midcourse evaluation and summative assessment

To assess the level of knowledge of students, the following diagnostic tools are used:

- protection of laboratory work;
- current and intermediate certification;
- defense of course work;
- exam.