

## BASICS OF AGORITHMIZATION AND PROGRAMMING

### **COURSE SYLLABUS ABSTRACT**

**Speciality** 1-28 01 02 – Digital Marketing

	STUDY MODE	
	full-time	part-time
Year	1	1
Semester	1,2	1,2
Lectures, hours	50	16
Laboratory classes, hours	68	12
In-class test (semester, hours)	-	1, 2 (4 hours)
Exam, semester	1,2	1,2
Contact hours	118	32
Independent study, hours	110	196
Total course duration in hours / credit units	228/6	228/6

**1. Course outline:** General information about algorithms. Programming systems. Basic elements of the language. Complex data types. subroutines. Files. Dynamic data structures. Additional features of the language being studied

**2. Course learning outcomes:** upon completion of the course, students will be expected to

**know:** the current state of one of the high-level algorithmic languages; basic dynamic data structures and algorithms for their processing; the most efficient and frequently used in practice computational algorithms for solving engineering problems;

**be able to:** perform algorithmization of engineering tasks;

**possess:** modern programming tools; the skills of analyzing the initial and output data of the tasks being solved and the forms of their presentation; program debugging skills

**3. Competencies:** solve standard problems of professional activity based on the use of information and communication technologies (UC-2), apply the main methods of algorithmization, methods and means of obtaining, storing, processing information when solving professional problems (BPC-11).

**4. Requirements and forms of midcourse evaluation and summative assessment**

The module-rating system is used. Intermediate certification: protection of reports on laboratory work. Current certification: pass/fail, exam.