

**INFORMATICS**  
(course title)  
**COURSE SYLLABUS ABSTRACT**

6-05-0714-02 Mechanical engineering technology, machine tools and instruments

(speciality code and name)

Equipment and technologies for high-performance material processing

(concentration)

	STUDY MODE		
	full-time	part-time	part-time (shortened program)
Year	1		
Semester	1, 2		
Lectures, hours	50		
Laboratory classes, hours	32		
Pass/fail, semester	2		
Exam, semester	1		
Contact hours	82		
Independent study, hours	134		
Total course duration in hours / credit units	216/6		

1. Course outline

The discipline studies modern information technologies and means of converting, processing, storing and transmitting information.

2. Course learning outcomes

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

- the structure and technical means of a personal computer;
- system and application software;
- basics of modern multimedia and networking technologies and their tools and capabilities;
- basics of algorithmization of engineering problems;
- at least one programming language and basic techniques of its use;

be able to:

- work in the environment of the operating system MSWindows;
- Use standard office software packages, including MS Word word processor, MS Excel spreadsheet processor, MS Power Point presentation tools;
- use packages of special programs for mathematical purposes;
- build mathematical models and develop algorithms for solving applied tasks;
- implement algorithms in the form of their own programs in the VBA programming language;
- use programming skills in professional activities.

to possess a skill:

- methods of algorithmic engineering tasks;
- practical creation and support of automated workstations based on personal computers;
- methods of managing programs, data and equipment on the basis of modern operating systems for personal computers.

3. Competencies

BPC-1.3 To know the basic methods, ways and means of obtaining, storing, processing information, skills of working with a computer as a means of information management, the use of computer networks.

4. Requirements and forms of midcourse evaluation and summative assessment

In the study of the discipline uses a module-rating system for assessing students' knowledge. Protection of laboratory works, intermediate control of progress, exam, credit.