

INFORMATICS

(course title)

COURSE SYLLABUS ABSTRACT

6-05-0715-03 Cars, tractors, mobile and technological complexes

(speciality code and name)

Computer engineering in lifting and transport engineering; Computer engineering in the automotive industry; Computer engineering in construction and road engineering

(concentration)

| | STUDY MODE |
|---|------------|
| | full-time |
| Year | 1 |
| Semester | 1, 2 |
| Lectures, hours | 34 |
| Laboratory classes, hours | 34 |
| Exam, semester | 1 |
| Course paper, semester | 2 |
| Contact hours | 68 |
| Independent study, hours | 76 |
| Total course duration in hours / credit units | 144/4 |

1. Course outline

The purpose of the discipline is the formation of the necessary knowledge for the use of modern basic computer technologies as a tool for solving practical problems in their subject area, as well as the study of modern methods of formulation, algorithmization, programming and problem solving using computer technology.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know: the device and technical means of a personal computer; system and application software; the basics of modern multimedia and network technologies, their means and capabilities; the basics of algorithmization of engineering tasks; at least one programming language and the basic techniques of its use;

be able to: be able to: work in the Microsoft Windows operating system environment; use standard office software packages, including Microsoft Word word processor, Microsoft Excel spreadsheet processor, Microsoft Power Point presentation tools; use special mathematical software packages; build mathematical models and develop algorithms for solving applied problems; implement algorithms in the form of proprietary programs; use programming skills in professional activities.

to possess a skill: methods of algorithmization of engineering tasks; practical creation and maintenance of automated workplaces based on personal computers; methods of managing programs, data and equipment based on modern operating systems for personal computers.

3. Competencies

CC-9 To master the basics of research activities, to search, analyze and synthesize information

UK-10 To solve standard tasks of professional activity based on the use of information and communication technologies

BPC-17 Use basic methods, methods and means of obtaining, storing, processing information, computer skills as a means of information management, work with information in computer networks and apply basic programming technologies in a high-level algorithmic language

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.