## COMPUTER TECHNOLOGIES AND PROGRAMMING IN THE ROAD INDUSTRY

## COURSE SYLLABUS ABSTRACT

Specialty <u>7-06-0732-01 Construction</u> Concentration Transport construction

|  | STUDY MODE |           |
|--|------------|-----------|
|  | full-time  | part-time |
| Year   | 1          | 2         |
| Semester   | 2          | 3         |
| Lectures, hours                                  | 34         | 8         |
| Laboratory classes, hours                        | 50         | 10        |
| Exam, semester                                   | 2          | 3         |
| Contact hours                                    | 84         | 18        |
| Independent study, hours                         | 240        | 306       |
| Total course duration in hours / credit<br>units | 324/9      |           |

## 1. Course outline

The purpose of the discipline is to familiarize masters with the basic concepts of modern computer technologies, trends in their development, the formation of knowledge and skills aimed at using computer technology and modern information technologies in professional activities. Theoretical and practical provisions of the discipline are studied in the course of practical work and independent work with educational and technical literature.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know: - the theory of algorithmization; - basics of programming; - basic Python libraries; be able to: - install programming software; - write programs; - find the necessary libraries and modules for writing programs on the Internet; - write programs using existing open libraries, modules, applications;

to possess a skill: - programming.

3. Competencies

UPK-3 To use modern software systems for design, 3D-modeling, development of information models of industrial and civil facilities, to use the acquired knowledge to solve practical, research and innovation tasks.

4. Requirements and forms of midcourse evaluation and summative assessment Current certification: – protection of laboratory work.

Intermediate certification: - exam.