

CONSTRUCTION AND ROAD MACHINES

ABSTRACT

TO THE EDUCATIONAL INSTITUTION CURRICULUM

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

Profiling:

Computer engineering in lifting and transport engineering

Computer engineering in construction and road engineering

	STUDY MODE
	full-time
Year	3,4
Semester	6,7
Lectures, hours	50
Laboratory classes, hours	34
Practical classes (seminars), hours	16
Exam, semester	6
Course project, semester	7
Guided independent study, hours, type/ semestr	100
Independent work, hours	44
Total course duration in hours / credit units	144/4

1. Course outline

The purpose of the discipline is to train a highly qualified specialist who meets the requirements of the qualification characteristics of an engineer and is able to independently solve design and research tasks in the field of road construction engineering at a high engineering level, teach students the principles of operation, theory and calculation of road vehicles and complexes, modern methods of their design and ensuring high operational properties.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know: purpose, scope of application, device, principle of operation of machines; basic indicators, specific indicators of metal consumption, energy saturation, labor consumption during manufacture and operation.

be able to: analyze the designs of machines and mechanisms; - to design machines and automated complexes; to use automated design systems and modern computing equipment; to test machines and determine their output characteristics; to analyze the conditions and modes of operation of machines on computers; to assess the level of automation of production processes.

to possess a skill to perform calculations of the main types of construction and road vehicles; -design of the main types of construction and road vehicles and their complexes; - operation of construction and road machinery equipment; use of special literature, reference books, standards and technical guidance materials.

3. Competencies

To be capable of self-development and improvement in professional activities. To apply the methodological foundations of designing construction and road machines.

4. Requirements and forms of midcourse evaluation and summative assessment

Oral, written, and technical forms are used to diagnose competencies. The following diagnostic tools are used to assess students' knowledge levels: laboratory and practical work defense, and exams.