JIB CRANES
(course title)

COURSE SYLLABUS ABSTRACT

6-05-0715-03 – «Cars, tractors, mobile and technological complexes»
(speciality code and name)

«Computer Engineering in Material Handling Machinery»
(concentration)

	STUDY MODE
	full-time
Year	**4**
Semester	7
Lectures, hours	16
Laboratory classes, hours	34
Pass/fail, semester	7
Contact hours	50
Independent study, hours	58
Total course duration in hours / credit units	108/3

1. Course outline. The objective of this academic discipline is to develop specialists who are able to reasonably and effectively apply existing skills and acquire new ones in the design and calculation of construction and special cranes, as well as their areas of application, allowing them to make specific decisions in practical work for the design and use of construction and special cranes and their mechanisms.
2. Course learning outcomes
Upon completion of the course, students will be expected to
know:
– Main types of boom cranes and their applications;
– Key areas for further development and improvement of boom cranes;
– Design, operating principles, and calculation features of key boom crane parameters;
– Main types of automatic lifting devices, their design, and calculation features;
– Ensuring safety and reliability when operating boom cranes;
be able to:
- justify the selection of boom cranes for specific application conditions;
- use a methodology for calculating the main parameters of boom cranes and lifting devices;
to possess a skill:
– acquired knowledge and skills in selecting and calculating the key parameters of boom cranes and lifting devices;
– information on the main areas for further development and improvement of boom cranes.
3. Competencies: Apply the methodological principles of designing lifting and transport machines.
4. Requirements and forms of midcourse evaluation and summative assessment: surveys, laboratory work protection, and exams are conducted in an oral form (information and communication technologies may be used).