

LOADING AND UNLOADING MACHINERY AND EQUIPMENT

(course title)

COURSE SYLLABUS ABSTRACT

Specialty 7-06-0714-02 Innovative technologies in mechanical engineering

(speciality code and name)

Profiling Computer engineering of transport and technological machines

Advanced higher education

	STUDY MODE	
	full-time	part-time
Year	1	1
Semester	1	2
Lectures, hours	34	8
Practical classes (seminars), hours	34	8
Exam, semester	1	2
Contact hours	68	16
Independent study, hours	148	200
Total course duration in hours / credit units	216/6	

1. Course outline

The purpose of the academic discipline is to develop knowledge, training and skills in the design, calculation and operation of loading and unloading machines and equipment.

2. Course learning outcomes

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

- areas of application of the main types of loading and unloading machines and equipment;
- trends in the development of loading and unloading machines and equipment;
- design of loading and unloading machines and equipment;
- features of calculation of mechanisms and units of loading and unloading machines and equipment;
- basics for choosing the main parameters of loading and unloading machines and equipment;
- ways to increase the reliability of loading and unloading machines and equipment;

be able to:

- calculate typical mechanisms for loading and unloading machines and equipment;
- justify the choice of load-handling devices;
- determine the main parameters of machines taking into account the requirements of regulations;
- comply with the basic provisions of safety standards regulated by the “Rules for the design and safe operation of load-lifting cranes”;

to possess a skill:

- knowledge of the basics of designing loading and unloading machines and equipment;
- knowledge of the basics of safe operation of loading and unloading machines and equipment;
- knowledge of technical diagnostic methods.

3. Competencies

SK-2 Have the skills to design loading and unloading, mining and special construction machines.

4. Requirements and forms of midcourse evaluation and summative assessment

At the beginning of the lecture session, students are asked to take a survey in the form of a test on a pre-announced topic. The discipline includes 9 surveys. Each survey contains from 10 to 28 questions. Testing is carried out using the automated program “MOODLE”. The student is given 20 minutes to answer. After completing all surveys, a student can receive a maximum of 40 points. For completing all practical work and preparing reports, a student can receive a maximum of 20 points. During the exam, the student is asked to answer 20 questions corresponding to the content of the competencies being developed. Testing is carried out using the automated program “MOODLE”. Questions are randomly selected from a question bank. The student is given 30 minutes to answer. After passing the test, a student can receive a maximum of 40 points.